



# STIC SEARCH RESULTS FEEDBACK FORM

## Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher or contact*:

Mary Hale, Information Branch Supervisor  
Remsen Bldg. 01 D86  
571-272-2507

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1610

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC-Biotech-Chem Library, Remsen Bldg.



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09.782.306

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Khare 10/312886

Page 1

=> fil reg; d ide  
FILE 'REGISTRY' ENTERED AT 15:39:15 ON 14 JUL 2005  
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STRUCTURE FILE UPDATES: 13 JUL 2005 HIGHEST RN 854992-86-2  
DICTIONARY FILE UPDATES: 13 JUL 2005 HIGHEST RN 854992-86-2

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

L25 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 329900-75-6 REGISTRY  
ED Entered STN: 04 Apr 2001  
CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Arachidonate cyclooxygenase 2  
CN COX-2  
CN Cyclooxygenase 2  
CN Cyclooxygenase II  
CN Prostaglandin endoperoxidase synthase 2  
CN Prostaglandin endoperoxide H synthase-2  
CN Prostaglandin endoperoxide synthase-2  
CN Prostaglandin endoperoxide synthetase 2  
CN Prostaglandin G/H synthase-2  
CN Prostaglandin H synthase-2  
MF Unspecified  
CI MAN  
SR CA  
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

Searched by Barb O'Bryen, STIC 2-2518

6820 REFERENCES IN FILE CA (1907 TO DATE)  
 7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 6901 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> □

=> fil reg; d stat que l22; fil capl; d que nos l30  
 FILE 'REGISTRY' ENTERED AT 15:45:48 ON 14 JUL 2005  
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STRUCTURE FILE UPDATES: 13 JUL 2005 HIGHEST RN 854992-86-2  
 DICTIONARY FILE UPDATES: 13 JUL 2005 HIGHEST RN 854992-86-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

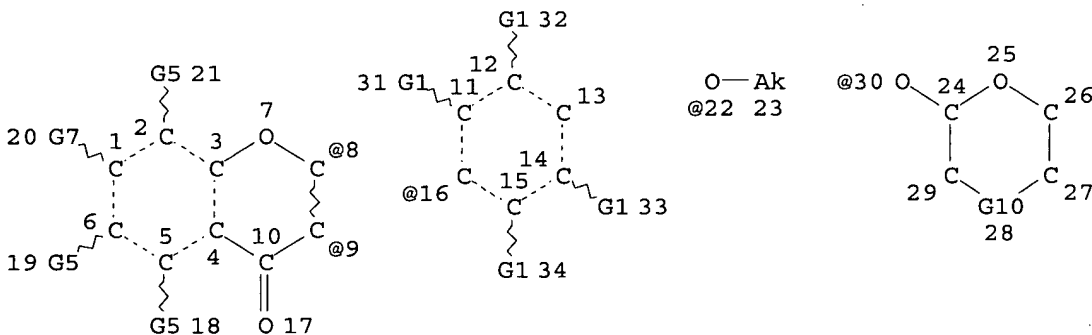
Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

\*\*\*\*\*  
 \*  
 \* The CA roles and document type information have been removed from \*  
 \* the IDE default display format and the ED field has been added, \*  
 \* effective March 20, 2005. A new display format, IDERL, is now \*  
 \* available and contains the CA role and document type information. \*  
 \*  
 \*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
 information enter HELP PROP at an arrow prompt in the file or refer  
 to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

L8 STR

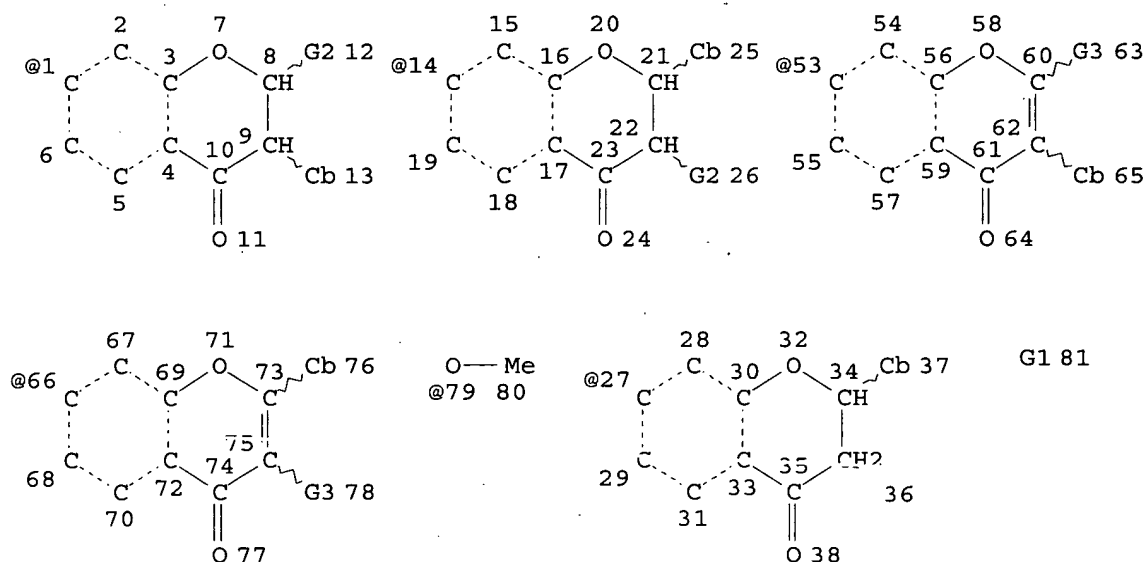


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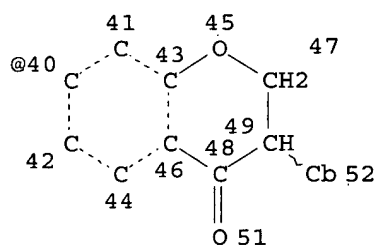
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 REP G10=(0-1) C  
 VPA 16-8/9 U  
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 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE  
 L10 15296 SEA FILE=REGISTRY SSS FUL L8  
 L17 STR



Page 1-A



Page 2-A

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 VAR G3=H/OH/79  
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 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

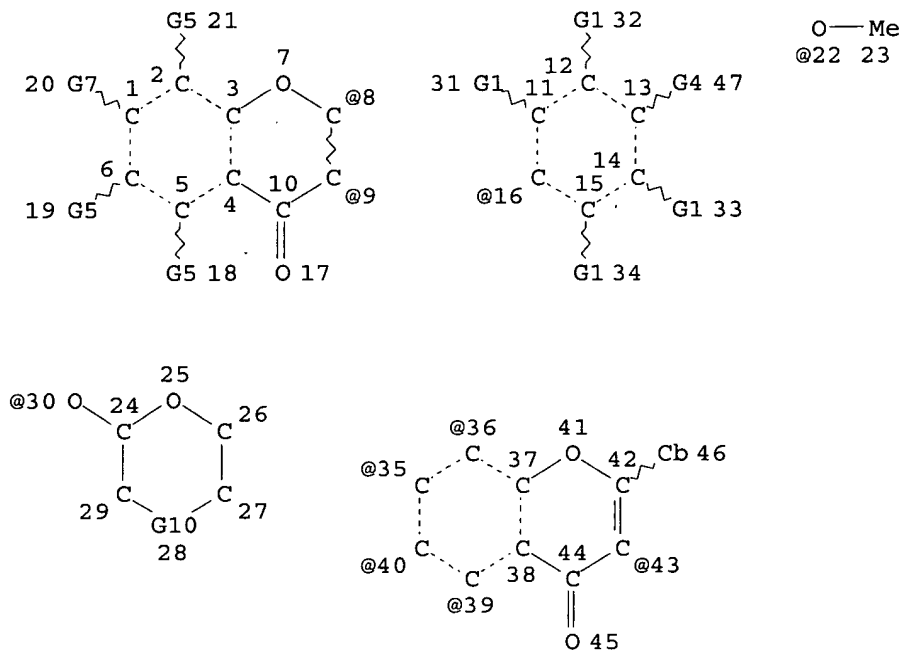
GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED

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 looking for this structure  
 & structure on the following  
 page*

NUMBER OF NODES IS 79

STEREO ATTRIBUTES: NONE

L20 STR



VAR G1=H/OH/22

VAR G4=H/35/36/40/39/43

VAR G5=H/OH/22

VAR G7=H/OH/22/30

REP G10=(0-1) C

VPA 16-8/9 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY LOC UNS AT 46

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L22 1370 SEA FILE=REGISTRY SUB=L10 SSS FUL (L17 AND L20)

100.0% PROCESSED 15296 ITERATIONS

1370 ANSWERS

SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 15:45:48 ON 14 JUL 2005

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FILE COVERS 1907 - 14 Jul 2005 VOL 143 ISS 3  
FILE LAST UPDATED: 13 Jul 2005 (20050713/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L8 STR  
L10 15296 SEA FILE=REGISTRY SSS FUL L8  
L17 STR  
L20 STR  
L22 1370 SEA FILE=REGISTRY SUB=L10 SSS FUL (L17 AND L20)  
L24 19296 SEA FILE=CAPLUS ABB=ON (NF/OBI OR NUCLEAR FACTOR/OBI) (W).KAPPA  
./OBI (W) B/OBI  
L25 1 SEA FILE=REGISTRY ABB=ON 329900-75-6  
L26 1643 SEA FILE=CAPLUS ABB=ON L22 (L) (THU OR PAC OR PKT OR DMA OR  
BAC)/RL  
L27 9735 SEA FILE=CAPLUS ABB=ON L25 OR (CYCLOOXYGENASE/OBI OR CYCLO  
OXYGENASE/OBI OR COX/OBI) (W) 2/OBI OR COX2/OBI  
L29 41 SEA FILE=CAPLUS ABB=ON (L24 OR L27) (L) (INHIB?/OBI OR BLOCK?/OB  
I OR ANTAG?/OBI) AND L22  
L30 36 SEA FILE=CAPLUS ABB=ON L29 AND L26

=> d ibib ed abs hitstr l30 1-36

L30 ANSWER 1 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:330607 CAPLUS

DOCUMENT NUMBER: 142:475554

TITLE: Baicalein, a component of Scutellaria radix from Huang-Lian-Jie-Du-Tang (HLJDT), leads to suppression of proliferation and induction of apoptosis in human myeloma cells

AUTHOR(S): Ma, Zi; Otsuyama, Ken-ichiro; Liu, Shangqin; Abroun, Saeid; Ishikawa, Hideaki; Tsuyama, Naohiro; Obata, Masanori; Li, Fu-Jun; Zheng, Xu; Maki, Yasuko; Miyamoto, Koji; Kawano, Michio M.

CORPORATE SOURCE: Department of Bio-Signal Analysis, Applied Medical Engineering Science (AMES), Graduate School of Medicine, Yamaguchi University, Yamaguchi, Japan

SOURCE: Blood (2005), 105(8), 3312-3318  
CODEN: BLOOAW; ISSN: 0006-4971

PUBLISHER: American Society of Hematology

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 18 Apr 2005

AB In the search for a more effective adjuvant therapy to treat multiple myeloma (MM), the authors investigated the effects of the traditional

Role  
THU -  
therapeutic use

PAC - pharmacologic  
activity

PKT - pharmacokinetics  
DMA - drug mechanism  
of action

BAC -  
Biological  
activity

Chinese herbal medicines Huang-Lian-Jie-Du-Tang (HLJDT), Gui-Zhi-Fu-Ling-Wan (GZFLW), and Huang-Lian-Tang (HLT) on the proliferation and apoptosis of myeloma cells. HLJDT inhibited the proliferation of myeloma cell lines and the survival of primary myeloma cells, especially MPC-1- immature myeloma cells, and induced apoptosis in myeloma cell lines via a mitochondria-mediated pathway by reducing mitochondrial membrane potential and activating caspase-9 and caspase-3. Further expts. confirmed that Scutellaria radix was responsible for the suppressive effect of HLJDT on myeloma cell proliferation, and the baicalein in Scutellaria radix showed strong growth inhibition and induction of apoptosis in comparison with baicalin or wogonin. Baicalein as well as baicalin suppressed the survival in vitro of MPC-1- immature myeloma cells rather than MPC-1+ myeloma cells from myeloma patients. Baicalein inhibited the phosphorylation of I $\kappa$ B- $\alpha$ , which was followed by decreased expression of the IL-6 and XIAP genes and activation of caspase-9 and caspase-3. Therefore, HLJDT and Scutellaria radix have an antiproliferative effect on myeloma cells, especially MPC-1- immature myeloma cells, and baicalein may be responsible for the suppressive effect of Scutellaria radix by blocking I $\kappa$ B- $\alpha$  degradation

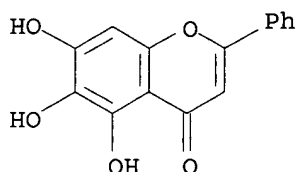
IT 491-67-8, Baicalein 632-85-9, Wogonin 21967-41-9  
, Baicalin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(baicalein leads to suppression of proliferation and induction of apoptosis in human myeloma cells)

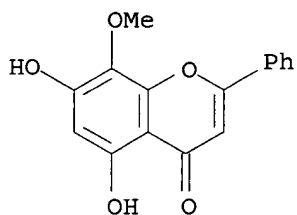
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 632-85-9 CAPLUS

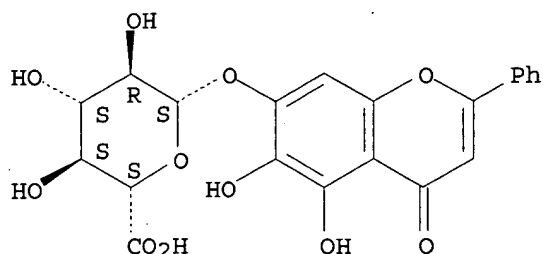
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 2 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:123199 CAPLUS

DOCUMENT NUMBER: 142:191239

TITLE: Botanical extract compositions comprising phytoestrogens and methods of use

INVENTOR(S): Chen, Sophie

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S. Ser. No. 384,405, abandoned.  
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005032882	A1	20050210	US 2003-647458	20030801
PRIORITY APPLN. INFO.:			US 2002-362420P	P 20020306
			US 2002-374417P	P 20020422
			US 2003-384405	B2 20030306

OTHER SOURCE(S): MARPAT 142:191239

ED Entered STN: 13 Feb 2005

AB A composition having phytoestrogenic and anti-cancer activity is described. The composition comprises wogonin, isoliquiritigenin, coumestrol, their pharmaceutically acceptable salts or esters, their selectively substituted analogs, or combinations thereof. The compns. may also include an anti-cancer agent and/or an immune stimulant. A method for treating or preventing cancer or an estrogen-related disorder includes administering a therapeutically effective amount of the compns. is described. The compns. are particularly useful in the treatment of hormone-related cancers.

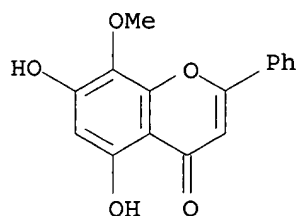
IT 632-85-9P, Wogonin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

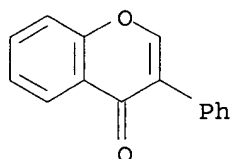
(botanical extract compns. comprising phytoestrogens in combination with anti-cancer agents and immunostimulants for treatment of cancer and estrogen-related disorders)

RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



IT 574-12-9D, Isoflavone, derivs.  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (botanical extract compns. comprising phytoestrogens in combination with anti-cancer agents and immunostimulants for treatment of cancer and estrogen-related disorders)  
 RN 574-12-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



IT 329900-75-6, Cyclooxygenase 2  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibition; botanical extract compns. comprising phytoestrogens in combination with anti-cancer agents and immunostimulants for treatment of cancer and estrogen-related disorders)  
 RN 329900-75-6 CAPLUS  
 CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L30 ANSWER 3 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:99157 CAPLUS  
 DOCUMENT NUMBER: 142:170033  
 TITLE: Methods and compositions for the treatment or prevention of human immunodeficiency virus and related conditions using **cyclooxygenase-2** selective **inhibitors** and antiviral agents  
 INVENTOR(S): Maziasz, Timothy  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 172 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

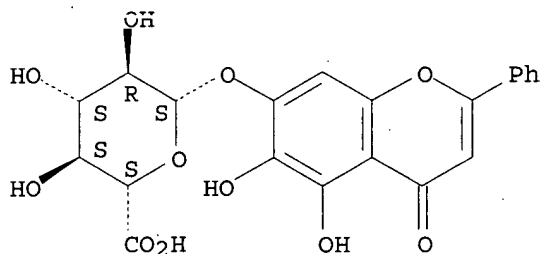
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005026902	A1	20050203	US 2004-769485	20040130
PRIORITY APPLN. INFO.:			US 2003-443910P	P 20030131
OTHER SOURCE(S):		MARPAT 142:170033		

ED Entered STN: 04 Feb 2005  
AB The present invention provides compns. and methods for the treatment of human immunodeficiency virus (HIV) infection as well as HIV associated diseases and related disorders. More particularly, the invention provides a combination therapy for the treatment of HIV infection as well as HIV associated diseases and related disorders comprising the administration to a subject of an anti-human immunodeficiency virus agent in combination with a cyclooxygenase-2 selective inhibitor or an isomer or a pharmaceutically acceptable salt, ester, or prodrug thereof.  
IT **329900-75-6, Cyclooxygenase-2**  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (methods and compns. for treatment or prevention of HIV infection and related conditions using **cyclooxygenase-2** selective **inhibitors** and antiviral agents)  
RN 329900-75-6 CAPLUS  
CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT **21967-41-9**  
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)** (methods and compns. for treatment or prevention of HIV infection and related conditions using **cyclooxygenase-2** selective **inhibitors** and antiviral agents)  
RN 21967-41-9 CAPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L30 ANSWER 4 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:1155437 CAPLUS  
DOCUMENT NUMBER: 142:367049  
TITLE: Inhibitory effect of chunghuldan in prostaglandin E2 and nitric oxide biosynthesis of lipopolysaccharide-induced RAW 264.7 cells  
AUTHOR(S): Cho, Ki-Ho; Kim, Young-Suk; Bae, Hyung-Sup; Moon, Sang-Kwan; Jung, Woo Sang; Park, Eun-Kyung; Kim, Dong-Hyun  
CORPORATE SOURCE: College of Oriental Medicine, Kyung Hee University, Seoul, 130-701, S. Korea  
SOURCE: Biological & Pharmaceutical Bulletin (2004), 27(11), 1810-1813  
CODEN: BPBLEO; ISSN: 0918-6158  
PUBLISHER: Pharmaceutical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English

ED Entered STN: 30 Dec 2004

AB Chunghyuldan (Daio-Orengedokuto in Japanese) (CHD) was used as an antihyperlipidemic and antiischemic agent in Korea. To evaluate in vitro the efficacy of Chunghyuldans (CHDs) metabolized with and without human intestinal microflora against brain ischemia, the authors investigated its anti-inflammatory effect on LPS-induced RAW264.7 cells. Both metabolized CHD (MCHD) and CHD showed antioxidant activities in vitro, and inhibited nitric oxide (NO) and prostaglandin E2 (PGE2) productions in lipopolysaccharide (LPS)-induced RAW264.7 cells. These also inhibited enzyme activities and protein expressions of inducible NO synthase and cyclooxygenase-2 in LPS-induced RAW264.7 cells. MCHD-inhibitory activity against NO and PGE2 productions in LPS-induced RAW264.7 cells was more potent than those of CHD. These results suggest that CHD may show potent anti-inflammatory activity in vivo and can improve brain ischemia.

IT **329900-75-6, Cyclooxygenase 2**  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitory effect of chunghuldan in prostaglandin E2 and NO biosynthesis of lipopolysaccharide-induced RAW 264.7 cells)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

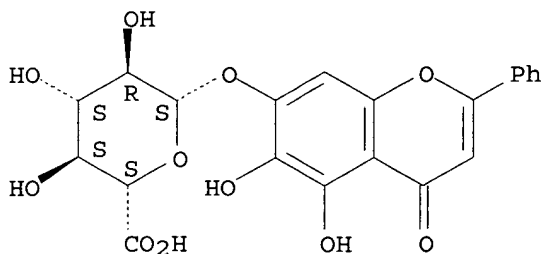
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IT **21967-41-9, Baicalin**  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inhibitory effect of chunghuldan in prostaglandin E2 and NO biosynthesis of lipopolysaccharide-induced RAW 264.7 cells)

RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:1043376 CAPLUS

DOCUMENT NUMBER: 142:168960

TITLE: On the role of polarizability in QSAR

AUTHOR(S): Verma, Rajeshwar P.; Kurup, Alka; Hansch, Corwin

CORPORATE SOURCE: Department of Chemistry, Pomona College, Claremont, CA, 91711, USA

SOURCE: Bioorganic & Medicinal Chemistry (2004), Volume Date 2005, 13(1), 237-255

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 06 Dec 2004

AB The polarizability of a mol., an important phys. property, is currently attracting our attention particularly in the area of QSAR for chemical-biol. interactions. In this report, the polarizability effects on ligand-substrate interactions has been discussed in terms of NVE (number of valence electrons) using additive values for valence electrons and the formulation of a total number of 51 QSAR. The QSAR model can be illustrated by Eq. I.  $\log 1/C = a(NVE) \pm \text{constant}$

IT 329900-75-6, Cyclooxygenase-2

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(COX-2, inhibitors :: \; role of  
polarizability in QSAR)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

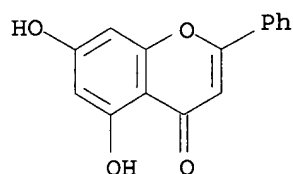
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 480-40-0 520-28-5 525-82-6

RL: PAC (Pharmacological activity); BIOL (Biological study)  
(role of polarizability in QSAR)

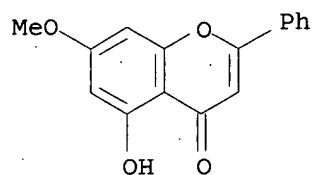
RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



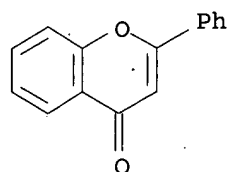
RN 520-28-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-7-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 525-82-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

54

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 6 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

Searched by Barb O'Bryen, STIC 2-2518

ACCESSION NUMBER: 2004:872698 CAPLUS  
 DOCUMENT NUMBER: 141:360715  
 TITLE: Formulation of dual cyclooxygenase (COX) and  
 lipoxxygenase (LOX) inhibitors for mammalian skin care  
 INVENTOR(S): Jia, Qi; Burnett, Bruce  
 PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 69 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089392	A1	20041021	WO 2004-US10279	20040402
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004220119	A1	20041104	US 2004-817330	20040402
PRIORITY APPLN. INFO.:			US 2003-460736P	P 20030404
OTHER SOURCE(S): MARPAT 141:360715				
ED Entered STN: 21 Oct 2004				
AB	<p>The invention provides a composition of matter comprised of a mixture of two specific classes of compds., free-B-ring flavonoids and flavans, for use in the prevention and treatment of diseases and conditions associated with the skin. The composition simultaneously inhibits cyclooxygenase (COX) and lipoxxygenase (LOX) enzymic activity in normal, aged and damaged dermal cells and tissues. The invention further provides a method for the prevention and treatment of diseases and conditions of the skin mediated by COX and LOX. The method for preventing and treating COX-2- and 5-LOX-mediated diseases and conditions of the skin comprises topically administering to a host in need thereof a therapeutically effective amount of a composition comprising a mixture of free-B-ring flavonoids and flavans synthesized and/or isolated from a single plant or multiple plants, preferably in the Scutellaria and Acacia genus of plants and pharmaceutically and/or cosmetically acceptable carriers. Finally, the invention provides a method for the prevention and treatment of COX- and LOX-mediated diseases and conditions, including but not limited to sun burns, thermal burns, acne, topical wounds, minor inflammatory conditions caused by fungal, microbial and viral infections, vitiligo, systemic lupus erythromatosus, psoriasis, carcinoma, melanoma, other mammalian skin cancers, skin damage from exposure to UV radiation, chems., heat, wind and dry environments, wrinkles, saggy skin, lines and dark circles around the eyes, dermatitis and other allergy-related conditions of the skin. Use of the composition of the invention also affords the benefit of smooth and youthful skin with improved elasticity, reduced and delayed aging, enhanced youthful appearance and texture, and increased flexibility, firmness, smoothness and suppleness.</p>			
IT	<p><b>329900-75-6, Cyclooxygenase 2</b>          RL: BSU (Biological study, unclassified); BIOL (Biological study)          (dual cyclooxygenase and lipoxxygenase <b>inhibitors</b> for</p>			

mammalian skin care)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 480-11-5, Oroxylin A 480-40-0, Chrysin 491-67-8

, Baicalein 632-85-9, Wogonin 4443-09-8, Norwogonin

21967-41-9, Baicalin 29550-13-8, 5,6-Dihydroxy-7-

methoxyflavone 35775-49-6, Chrysin-7-glucuronide

36948-76-2 38183-03-8, 7,8-Dihydroxyflavone

51059-44-0, Wogonin-7-glucuronide 123549-16-6

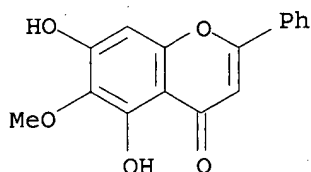
RL: COS (Cosmetic use); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(dual cyclooxygenase and lipoxygenase inhibitors for mammalian skin care)

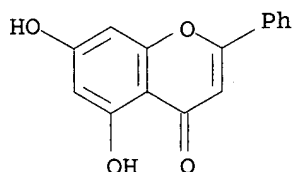
RN 480-11-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



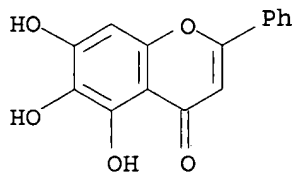
RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



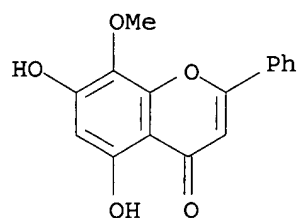
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

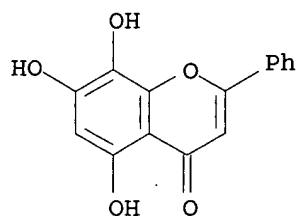


RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)

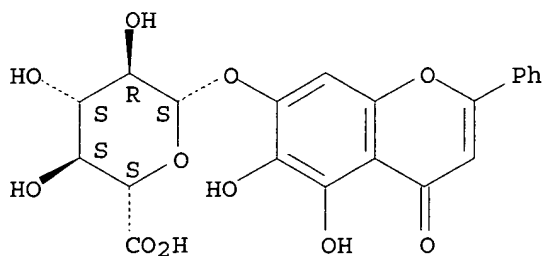


RN 4443-09-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7,8-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

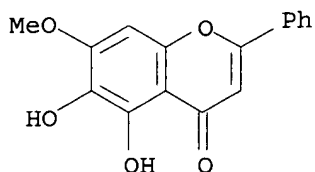


RN 21967-41-9 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

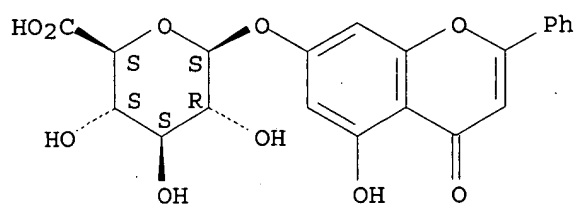


RN 29550-13-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,6-dihydroxy-7-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 35775-49-6 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

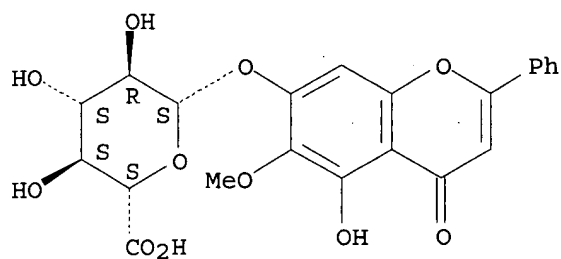
Absolute stereochemistry.



RN 36948-76-2 CAPLUS

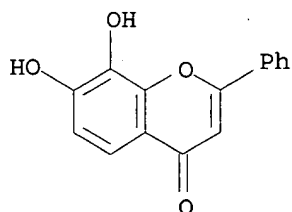
CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-6-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 38183-03-8 CAPLUS

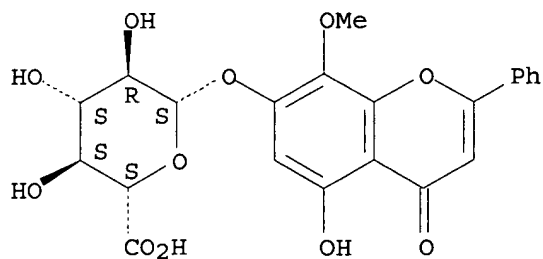
CN 4H-1-Benzopyran-4-one, 7,8-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 51059-44-0 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-8-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

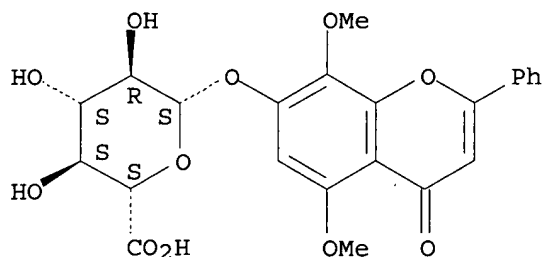


RN 123549-16-6 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,8-dimethoxy-4-oxo-2-phenyl-4H-1-

benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 7 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:734738 CAPLUS

DOCUMENT NUMBER: 141:307052

TITLE: Flavonoids **inhibit** tumor necrosis factor- $\alpha$ -induced up-regulation of intercellular adhesion molecule-1 (ICAM-1) in respiratory epithelial cells through activator protein-1 and **nuclear factor- $\kappa$ B**:

AUTHOR(S): Structure-activity relationships  
Chen, Ching-Chow; Chow, Man-Ping; Huang, Wei-Chien; Lin, Yi-Chu; Chang, Ya-Jen

CORPORATE SOURCE: Department of Pharmacology, College of Medicine, National Taiwan University, Taipei, Taiwan

SOURCE: Molecular Pharmacology (2004), 66(3), 683-693  
CODEN: MOPMA3; ISSN: 0026-895X

PUBLISHER: American Society for Pharmacology and Experimental Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Sep 2004

AB Intercellular adhesion mol.-1 (ICAM-1) has been implicated in the processes of inflammation and carcinogenesis. Flavonoids, which are polyphenolic compds. with a wide distribution throughout the plant kingdom, have potent anti-inflammatory properties. The authors investigated the effects of flavonols (kaempferol, quercetin, and myricetin) and flavones (flavone, chrysin, apigenin, luteolin, baicalein, and baicalin) on the tumor necrosis factor- $\alpha$  (TNF- $\alpha$ )-stimulated ICAM-1 expression. Among those flavonoids tested, kaempferol, chrysin, apigenin, and luteolin are active inhibitors of ICAM-1 expression. Addnl. expts. suggested that apigenin and luteolin were actively inhibiting the I $\kappa$ B kinase (IKK) activity, the I $\kappa$ B $\alpha$  degradation, the nuclear factor- $\kappa$ B (NF- $\kappa$ B) DNA-protein binding, and the NF- $\kappa$ B luciferase activity. TNF- $\alpha$ -induced ICAM-1 promoter activity was attenuated using an activator protein-1 (AP-1) site deletion mutant, indicating the involvement of AP-1 in ICAM-1 expression. AP-1-specific DNA-protein binding activity was increased by TNF- $\alpha$ , and the supershift assay identified the components of c-fos and c-jun. Extracellular signal-regulated kinase (ERK) and p38 were involved in the c-fos mRNA expression, and c-Jun N-terminal kinase (JNK) was involved in the c-jun mRNA expression. All three mitogen-activated protein kinase (MAPK) activities were inhibited by apigenin and luteolin. In comparison,

kaempferol and chrysin only inhibited the JNK activity. The inhibitory effects of apigenin and luteolin on ICAM-1 expression are mediated by the sequential attenuation of the three MAPKs activities, the c-fos and c-jun mRNA expressions, and the AP-1 transcriptional activity. IKK/NF- $\kappa$ B pathway is also involved; however, kaempferol- and chrysin-mediated inhibitions are primarily executed through the attenuation of JNK activity, c-jun mRNA expression, and AP-1 activity. The structure-activity relationships are also explored, and the important role of -OH group at positions 5 and 7 of A ring and at position 4 of B ring is noted. Finally, our results suggested that AP-1 seems to play a more significant role than NF- $\kappa$ B in the flavonoid-induced ICAM-1 inhibition.

IT 480-40-0, Chrysin 491-67-8, Baicalein 525-82-6

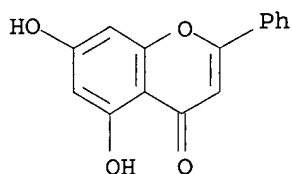
, Flavone 21967-41-9, Baicalin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonoids **inhibit** tumor necrosis factor- $\alpha$ -induced up-regulation of intercellular adhesion mol.-1 (ICAM-1) in respiratory epithelial cells through activator protein-1 and **nuclear factor- $\kappa$  B**)

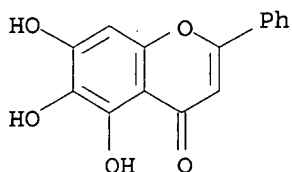
RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



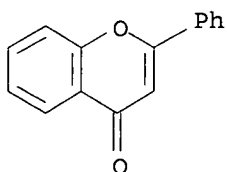
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 525-82-6 CAPLUS

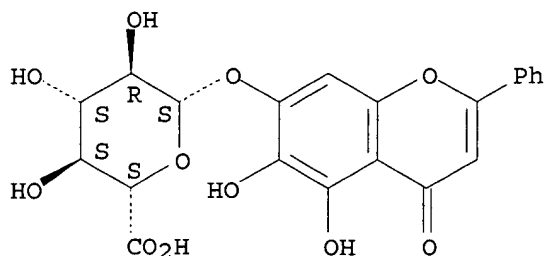
CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 8 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:470431 CAPLUS

DOCUMENT NUMBER: 141:22660

TITLE: Propolis compositions containing quercetin, p-coumaric acid, and artemillin C

INVENTOR(S): Yoshizumi, Kazuma; Nishioka, Nobuo

PATENT ASSIGNEE(S): FancI Corporation, Japan; Morikawa Kenkodo K. K.

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004159563	A2	20040610	JP 2002-329284	20021113
PRIORITY APPLN. INFO.:			JP 2002-329284	20021113

ED Entered STN: 10 Jun 2004

AB Propolis compns., which show enhanced bioactivity, contain quercetin, p-coumaric acid, artemillin C (I), and further chrysin (II), galangin (III), or phenethyl caffeate (IV). Chinese propolis contained no I and Brazilian propolis contained I but neither II, III, nor IV. Both propolis products are mixed to complement their bioactivities. COX-2 inhibitory activity of a propolis composition varied according to mixing ratio of both products.

IT 329900-75-6, Cyclooxygenase 2

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor; propolis compns. containing quercetin, p-coumaric acid, artemillin C, and further chrysin, galangin, or phenethyl caffeate)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

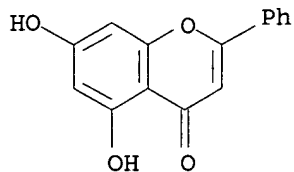
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 480-40-0, Chrysin 548-83-4, Galangin

RL: BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (propolis compns. containing quercetin, p-coumaric acid, artemillin C, and further chrysin, galangin, or phenethyl caffeate)

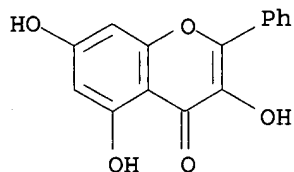
RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



L30 ANSWER 9 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:467984 CAPLUS

DOCUMENT NUMBER: 141:22217

TITLE: Therapy of non-malignant diseases or disorders with anti-ErbB2 antibodies

INVENTOR(S): Sliwowski, Mark X.; Brunetta, Paul G.

PATENT ASSIGNEE(S): Genentech, Inc., USA

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004048525	A2	20040610	WO 2003-US37367	20031121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004258685	A1	20041223	US 2003-719310	20031121
PRIORITY APPLN. INFO.:			US 2002-428027P	P 20021121

ED Entered STN: 10 Jun 2004

AB The authors disclose the preparation and biol. activity of murine and humanized antibodies to HER2. In one example, an anti-HER2 antibody is shown to inhibit heregulin-induced activation of Akt kinase and erbB2 association with erbB3. The present application describes treatment of non-malignant indications, such as psoriasis, endometriosis, scleroderma, vascular diseases or disorders, respiratory disease, colon polyps or fibroadenoma, with anti-ErbB2 antibodies (e.g. rhuMAb 2C4).

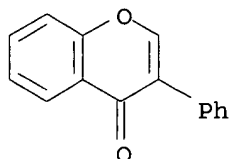
IT 574-12-9, Isoflavone

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adjunct therapy with antibodies to ErbB2)

RN 574-12-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



IT 329900-75-6, COX-2

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**inhibitors**; adjunct therapy with antibodies to ErbB2)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L30 ANSWER 10 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:448190 CAPLUS

DOCUMENT NUMBER: 140:417568

TITLE: Inhibition of contact dermatitis in animal models and suppression of proinflammatory gene expression by topically applied flavonoid, wogonin

AUTHOR(S): Lim, Hyun; Park, Haeil; Kim, Hyun Pyo

CORPORATE SOURCE: College of Pharmacy, Kangwon National University, Chuncheon, 200-701, S. Korea

SOURCE: Archives of Pharmacal Research (2004), 27(4), 442-448  
CODEN: APHRDQ; ISSN: 0253-6269

PUBLISHER: Pharmaceutical Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 03 Jun 2004

AB Wogonin (5,7-dihydroxy-8-methoxyflavone) is a down-regulator of cyclooxygenase-2 and inducible nitric oxide synthase expression, contributing to anti-inflammatory activity in vivo. For further characterization of modulatory activity on proinflammatory gene expression in vivo, the effect of wogonin was examined in this experiment using animal models of skin inflammation. By topical application, wogonin inhibited an edematous response as well as proinflammatory gene expression against contact dermatitis in mice. Wogonin inhibited ear edema (19.4-22.6%) at doses of 50-200 µg/ear and down-regulated interleukin-1β induction (23.1%) at 200 µg/ear in phenol-induced simple irritation. Wogonin (2+50-2+200 µg/ear) also inhibited edematous response (51.2-43.9%) and down-regulated proinflammatory gene expression of cyclooxygenase-2, interleukin-1β, interferon-γ, intercellular adhesion mol.-1 and inducible nitric oxide synthase with some different sensitivity against picryl chloride-induced delayed hypersensitivity reaction. All these results clearly demonstrate that wogonin is a down-regulator of proinflammatory gene expression in animal models of skin inflammation. Therefore, wogonin may have potential for a new anti-inflammatory agent against skin inflammation.

IT 329900-75-6, Cyclooxygenase-2

RL: BSU (Biological study, unclassified); BIOL (Biological study)

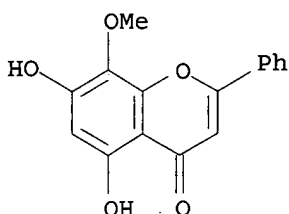
(**inhibition** of contact dermatitis in animal models and suppression of proinflammatory gene expression by topically applied flavonoid, wogonin)

RN 329900-75-6 CAPLUS  
CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 632-85-9, Wogonin  
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(inhibition of contact dermatitis in animal models and suppression of proinflammatory gene expression by topically applied flavonoid, wogonin)

RN 632-85-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 11 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:294563 CAPLUS

DOCUMENT NUMBER: 140:350059

TITLE: Synthesis and biological activities of 8-arylflavones

AUTHOR(S): Dao, Tran Thanh; Kim, Soo Bae; Sin, Kwan-Seog; Kim, Sanghee; Kim, Hyun Pyo; Park, Haeil

CORPORATE SOURCE: College of Pharmacy, Kangwon National University, Chuncheon, 200-701, S. Korea

SOURCE: Archives of Pharmacal Research (2004), 27(3), 278-282  
CODEN: APHRDQ; ISSN: 0253-6269

PUBLISHER: Pharmaceutical Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 12 Apr 2004

AB A number of 8-arylflavones have been synthesized as congeners of wogonin and evaluated for their inhibitory activities of PGE2 production. 8-Arylflavones were obtained from com. available chrysin via two different synthetic pathways. Most 8-arylflavones exhibited much reduced inhibitory activities against COX-2 catalyzed PGE2 production compared to that of wogonin. Functional group replacement at the 8-position of wogonin from methoxy to aryl group caused loss of inhibitory activity. Our present results imply that the functional group at the 8-position of flavones seems to play very important roles for bioactivity.

IT 329900-75-6, Cyclooxygenase 2

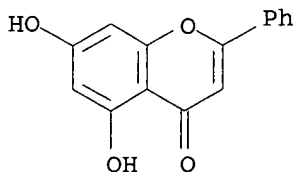
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(synthesis and PGE2 production-inhibiting activities of 8-arylflavones)

RN 329900-75-6 CAPLUS

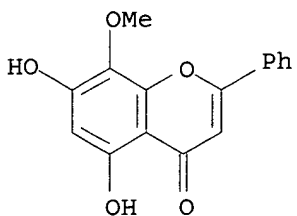
CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

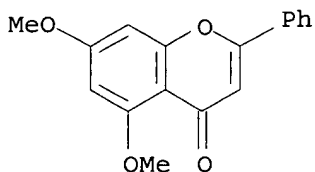
IT 480-40-0, Chrysin  
RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(synthesis and PGE2 production-inhibiting activities of 8-arylflavones)  
RN 480-40-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



IT 632-85-9, Wogonin  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(synthesis and PGE2 production-inhibiting activities of 8-arylflavones)  
RN 632-85-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



IT 21392-57-4P, 5,7-Dimethoxyflavone  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and PGE2 production-inhibiting activities of 8-arylflavones)  
RN 21392-57-4 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,7-dimethoxy-2-phenyl- (9CI) (CA INDEX NAME)



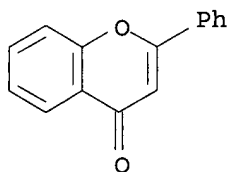
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 12 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:153573 CAPLUS  
DOCUMENT NUMBER: 140:357081  
TITLE: Synthesis and **inhibitory** activity against COX-2 catalyzed prostaglandin

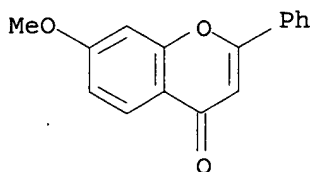
production of chrysin derivatives  
AUTHOR(S): Dao, Tran Thanh; Chi, Yeon Sook; Kim, Jeongsoo; Kim, Hyun Pyo; Kim, Sanghee; Park, Haeil  
CORPORATE SOURCE: College of Pharmacy, Kangwon National University, Chunchon, 200-701, S. Korea  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2004), 14(5), 1165-1167  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
ED Entered STN: 26 Feb 2004  
AB A series of chrysin derivs. were prepared and evaluated for their inhibitory activities of cyclooxygenase-2 catalyzed prostaglandin production Chrysin derivs. were prepared from 2-hydroxyacetophenone, 2,4-dihydroxyacetophenone and 2,6-dihydroxyacetophenone in 2 to 4 steps, resp. Methoxylated chrysin derivs. were converted to the corresponding hydroxylated chrysin derivs. by the reaction with BBr<sub>3</sub> in good yields. The inhibitory activity of the chrysin derivs. against prostaglandin production from lipopolysaccharide-treated RAW 264.7 cells was measured. Chrysin derivs. with 3',4'-dichloro substituents exhibited good inhibitory activity of prostaglandin production  
IT 329900-75-6, COX-2  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (COX-2; preparation of chrysin derivs. from acetophenones and their **inhibitory** activity against COX-2 catalyzed prostaglandin production)  
RN 329900-75-6 CAPLUS  
CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

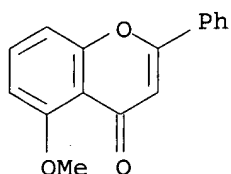
IT 525-82-6P 22395-22-8P 42079-78-7P  
PL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of chrysin derivs. from acetophenones and their **inhibitory** activity against COX-2 catalyzed prostaglandin production)  
RN 525-82-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



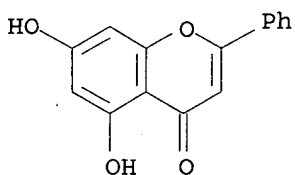
RN 22395-22-8 CAPLUS  
CN 4H-1-Benzopyran-4-one, 7-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



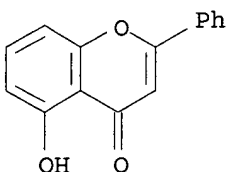
RN 42079-78-7 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



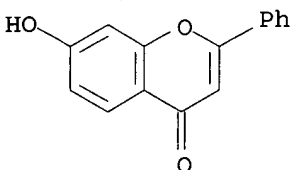
IT 480-40-0DP, Chrysin, derivs. 491-78-1P  
6665-86-7P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)  
(preparation of chrysin derivs. from acetophenones and their  
inhibitory activity against COX-2 catalyzed  
prostaglandin production)  
RN 480-40-0 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 491-78-1 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 6665-86-7 CAPLUS  
CN 4H-1-Benzopyran-4-one, 7-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)

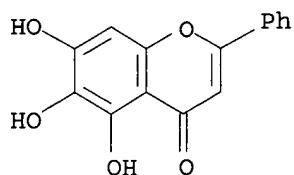


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 13 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

Searched by Barb O'Bryen, STIC 2-2518

ACCESSION NUMBER: 2004:111557 CAPLUS  
DOCUMENT NUMBER: 140:297340  
TITLE: Inhibition of inducible nitric oxide synthase expression by baicalein in endotoxin/cytokine-stimulated microglia  
AUTHOR(S): Chen, Chun-Jung; Raung, Shue-Ling; Liao, Su-Lan; Chen, Shih-Yun  
CORPORATE SOURCE: Department of Education and Research, Taichung Veterans General Hospital, Taichung, 407, Taiwan  
SOURCE: Biochemical Pharmacology (2004), 67(5), 957-965  
CODEN: BCPA6; ISSN: 0006-2952  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
ED Entered STN: 11 Feb 2004  
AB Excessive production of nitric oxide (NO) in the central nervous system (CNS) mediated by activation of microglia has been implicated in neurotoxicity after stresses such as ischemia. Baicalein, a polyphenolic flavonoid antioxidant, is known to have anti-inflammatory, anticarcinogenic, and neuroprotective effects. In the present study, we report the inhibitory effect of baicalein on endotoxin/cytokine-induced NO production and inducible nitric oxide synthase (iNOS) gene expression in microglia. Baicalein abolished the endotoxin/cytokine-induced expression of iNOS protein, iNOS mRNA, and iNOS promoter activity in a parallel concentration-dependent manner. The suppression of iNOS expression was not mediated through the down-regulation of tumor necrosis factor-alpha (TNF-alpha) by baicalein because TNF-alpha failed to enhance endotoxin/cytokine-induced NO production in microglia. From the electrophoretic mobility shift assay (EMSA), we found that baicalein exerted a distinct inhibitory effect on the DNA binding activity of transcription factors, and this was significantly greater in nuclear factor IL-6 (NF-IL6) than in nuclear factor kappa B (NF-kB) and activated protein 1 (AP-1). Although extracellular signal-regulated kinase (ERK) is critical to iNOS expression, endotoxin/cytokine-stimulated phosphorylation of ERK1/2 was not significantly inhibited by baicalein. These results indicate that NF-IL6 inactivation could be the major determinant for the suppression of NO production by baicalein in microglia. Furthermore, it suggests that the inhibitory effect of baicalein on microglia activation and neurotoxic factor production is responsible for its neuroprotective action.  
IT 491-67-8, Baicalein  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(inhibition of iNOS expression by baicalein in endotoxin/cytokine-stimulated microglia)  
RN 491-67-8 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 14 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:892548 CAPLUS  
 DOCUMENT NUMBER: 139:386470  
 TITLE: Formulation of a mixture of Free-B-ring flavonoids and flavans for treatment of diseases mediated by the COX-2 and 5-LO pathways  
 INVENTOR(S): Jia, Qi  
 PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 93 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003092599	A2	20031113	WO 2003-US13463	20030430
WO 2003092599	A3	20040311		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2484192	AA	20031113	CA 2003-2484192	20030430
EP 1503778	A2	20050209	EP 2003-726548	20030430
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRIORITY APPLN. INFO.:			US 2002-377168P	P 20020430
			WO 2003-US13463	W 20030430

OTHER SOURCE(S): MARPAT 139:386470

ED Entered STN: 14 Nov 2003

AB The present invention provides a novel composition of matter comprised of a mixture of two specific classes of compds., Free-B-ring flavonoids and flavans for the prevention and treatment of diseases and conditions mediated by the cyclooxygenase-2 (COX-2) and 5-lipoxygenase (5-LO) pathways, including but not limited to the relief joint discomfort and pain associated with conditions such as osteoarthritis, rheumatoid arthritis, and other injuries that result from overuse. The present invention further provides a novel method for simultaneously inhibiting the cyclooxygenase-2 (COX-2) and 5-lipoxygenase (5-LO) enzymes, and reducing COX-2 mRNA production. Finally, the present invention includes a method for weight loss and blood glucose control. The methods of this invention are comprised of administering to a host in need thereof an effective amount of the composition of this invention together with a pharmaceutically acceptable carrier. Examples are given for preparation of organic and aqueous exts. from

Acacia

and Scutellaria, inhibition of COX-2 peroxidase activity by various plant species, and isolation of flavonoids for Scutellaria exts.

IT 329900-75-6, COX-2

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(COX-2, inhibitors; formulation of a mixture of free-B-ring flavonoids and flavans for treatment of diseases mediated by the COX-2 and 5-LO pathways)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

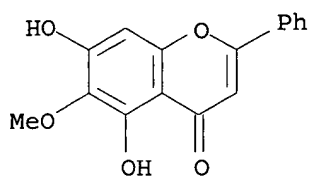
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 480-11-5, Oroxylin A 480-40-0, Chrysin 491-67-8  
 , Baicalein 632-85-9, Wogonin 4443-09-8, Norwogonin  
 21967-41-9, Baicalin 35775-49-6, Chrysin 7-glucuronide  
 36948-76-2 51059-44-0, Wogonin 7-glucuronide  
 123549-16-6

RL: NPO (Natural product occurrence); THU (Therapeutic use);  
 BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (formulation of a mixture of free-B-ring flavonoids and flavans for  
 treatment of diseases mediated by the COX-2 and 5-LO pathways)

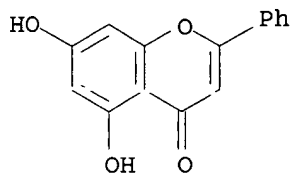
RN 480-11-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



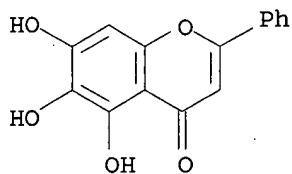
RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



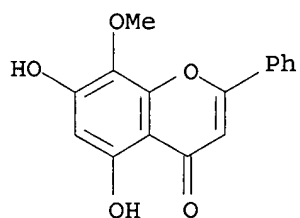
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

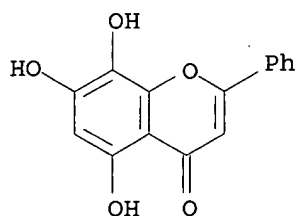


RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)

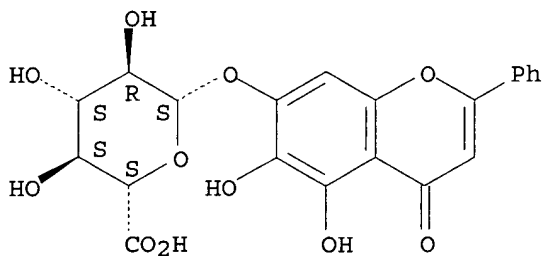


RN 4443-09-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7,8-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



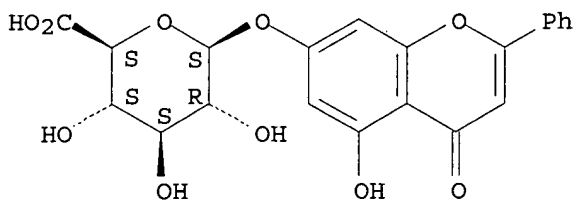
RN 21967-41-9 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



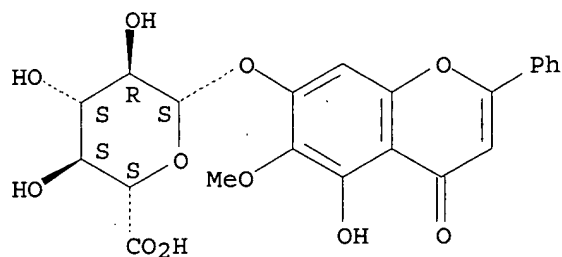
RN 35775-49-6 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 36948-76-2 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-6-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

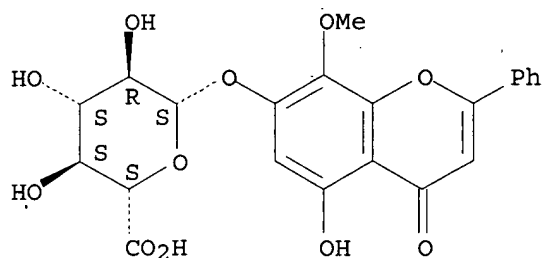
Absolute stereochemistry.



RN 51059-44-0 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5-hydroxy-8-methoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

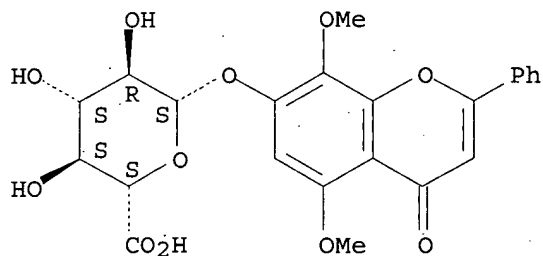
Absolute stereochemistry.



RN 123549-16-6 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,8-dimethoxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L30 ANSWER 15 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:830828 CAPLUS

DOCUMENT NUMBER: 140:156920

TITLE: Biological activities of flavonoids isolated from Chinese herb Huang Qui: Inhibition of NO and PGE2 production by flavonoids

AUTHOR(S): Chen, Yen-Chou; Shen, Shing-Chuan; Hsu, Foun-Lin

CORPORATE SOURCE: Graduate Institute of Pharmacognosy Science, School of Pharmacy, Taipei Medical University, Taipei, Taiwan

SOURCE: ACS Symposium Series (2003), 859 (Oriental Foods and Herbs), 113-120

CODEN: ACSMC8; ISSN: 0097-6156

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Oct 2003

AB Huang Qui is one of the popular Chinese herbs, and was used in treatment of several human diseases such as inflammation, allergy and arteriosclerosis for thousands of years. However the active components of Huang Qui are still undefined. The authors' recent studies demonstrated that flavonoids in Huang Qui including wogonin, quercetin, and oroxylin A showed the significant inhibition on lipopolysaccharide (LPS)-induced nitric oxide (NO) and prostaglandin E2 (PGE2) production, accompanied by inhibiting inducible nitric oxide synthase (iNOS) and cyclooxygenase 2 (COX-2) gene expression. The inhibitory mechanism of these compds. on LPS-induced responses was through inhibiting NF- $\kappa$ B activation. In vivo study showed that wogonin and quercetin were able to suppress LPS-induced NO production in the serum of Balb/c mice. In addition to NO inhibition, wogonin showed the apoptotic effect on human promyeloleukemia cells HL-60 and hepatocellular carcinoma cells SK-HEP-1 cells through activation of caspase 3-dependent cascade, and oroxylin A exhibited the significant relaxative effect in porcine cerebral arteries pre-constricted by U-46619 through activation of potassium channels. Results of the authors' studies demonstrate that wogonin, quercetin, and oroxylin A are active components of Huang Qui and deserve several beneficial biol. activities to be explored further.

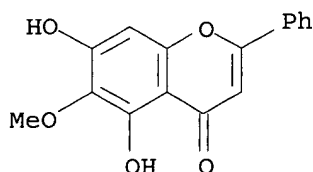
IT 480-11-5, Oroxylin A 632-85-9, Wogonin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition of NO and PGE2 production by flavonoids isolated from Chinese herb Huang Qui)

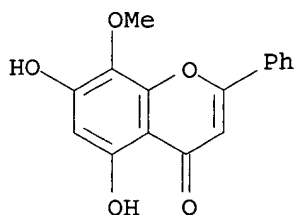
RN 480-11-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



IT 329900-75-6, Cyclooxygenase 2

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(inhibition; biol. activity of flavonoids isolated from  
Chinese herb Huang Qui)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 16 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:826157 CAPLUS

DOCUMENT NUMBER: 140:23032

TITLE: Flavonoid wogonin from medicinal herb is  
neuroprotective by inhibiting inflammatory activation  
of microglia

AUTHOR(S): Lee, Heasuk; Kim, Young Ok; Kim, Hocheol; Kim, Sun  
Yeou; Noh, Hae Sook; Kang, Sang Soo; Cho, Gyeong Jae;  
Choi, Wan Sung; Suk, Kyoungho

CORPORATE SOURCE: Dep. of Anat. and Neurobiol., Res. Inst. of Nat. Sci.,  
and Inst. of Health Sci., Gyeongsang Natl. Univ. Coll.  
of Med., Jinju, 660-751, S. Korea

SOURCE: FASEB Journal (2003), 17(13), 1943-1944,  
10.1096/fj.03-0057fje

CODEN: FAJOEC; ISSN: 0892-6638

PUBLISHER: Federation of American Societies for Experimental  
Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Oct 2003

AB Wogonin (5,7-dihydroxy-8-methoxyflavone), a flavonoid originated from the  
root of a medicinal herb *Scutellaria baicalensis* Georgi, has been  
previously shown to have anti-inflammatory activities in various cell  
types including macrophages. In this work, we have found that wogonin is  
a potent neuroprotector from natural source. Wogonin inhibited  
inflammatory activation of cultured brain microglia by diminishing  
lipopolysaccharide-induced tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ),  
interleukin-1 $\beta$ , and nitric oxide (NO) production. Wogonin inhibited NO  
production by suppressing inducible NO synthase (iNOS) induction and  
NF- $\kappa$ B activation in microglia. Inhibition of inflammatory  
activation of microglia by wogonin led to the reduction in microglial  
cytotoxicity toward cocultured PC12 cells, supporting a neuroprotective  
role for wogonin in vitro. The neuroprotective effect of wogonin was  
further demonstrated in vivo using two exptl. brain injury models;  
transient global ischemia by four-vessel occlusion and excitotoxic injury  
by systemic kainate injection. In both animal models, wogonin conferred  
neuroprotection by attenuating the death of hippocampal neurons, and the  
neuroprotective effect was associated with inhibition of the inflammatory  
activation of microglia. Hippocampal induction of inflammatory mediators  
such as iNOS and TNF- $\alpha$  was reduced by wogonin in the global ischemia  
model, and microglial activation was markedly down-regulated by wogonin in  
the kainate injection model as judged by microglia-specific isolectin B4  
staining. Taken together, our results indicate that wogonin exerts its  
neuroprotective effect by inhibiting microglial activation, which is a  
critical component of pathogenic inflammatory responses in neurodegenerative  
diseases. The current study emphasizes the importance of medicinal herbs  
and their constituents as an invaluable source for the development of  
novel neuroprotective drugs.

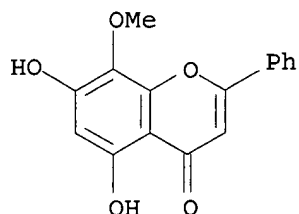
IT 632-85-9, Wogonin

RL: PAC (Pharmacological activity); THU (Therapeutic  
use); BIOL (Biological study); USES (Uses)

(flavonoid wogonin from medicinal herb is neuroprotective by inhibiting inflammatory activation of microglia)

RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 17 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:816980 CAPLUS

DOCUMENT NUMBER: 140:174727

TITLE: Involvement of **nuclear factor-**

**kappa.b** in the **inhibition**

of interleukin-12 production from mouse macrophages by

baicalein, a flavonoid in *Scutellaria baicalensis*

AUTHOR(S): Kang, Bok Yun; Chung, Su Wol; Kim, Seung Hyun; Cho, Daeho; Kim, Tae Sung

CORPORATE SOURCE: College of Pharmacy and Research Institute of Drug Development, Chonnam National University, Kwangju, S. Korea

SOURCE: *Planta Medica* (2003), 69(8), 687-691

CODEN: PLMEAA; ISSN: 0032-0943

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 17 Oct 2003

AB Pharmacol. inhibition of interleukin-12 (IL-12) production may be a therapeutic strategy for preventing development and progression of disease in exptl. models of autoimmunity. In this study we investigated the effects of baicalein, a flavonoid present in the root of *Scutellaria baicalensis*, on the production of IL-12 from mouse macrophages stimulated with lipopolysaccharide (LPS). Baicalein potently inhibited the LPS-induced IL-12 production from both primary macrophages and RAW264.7 monocytic cell line in a dose-dependent manner (the IC<sub>50</sub> values were 43.7 and 17.4  $\mu$ M, resp.). The effect of baicalein on IL-12 gene promoter activation was analyzed by transfecting RAW264.7 cells with IL-12 gene promoter/luciferase constructs. The repressive effect mapped to a region in the IL-12 gene promoter containing a binding site for NF- $\kappa$ B. Furthermore, activation of macrophages by LPS resulted in markedly enhanced binding activity to the NF- $\kappa$ B site, which significantly decreased upon addition of baicalein, indicating that baicalein inhibited IL-12 production in LPS-activated macrophages via inhibition of NF- $\kappa$ B binding activity.

IT 491-67-8, Baicalein

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);

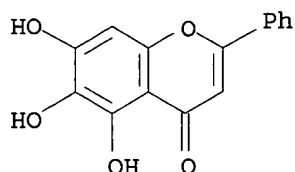
USES (Uses)

(NF- $\kappa$  B role in baicalein-induced

**inhibition of IL-12 in LPS-activated macrophages)**

RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 18 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:696316 CAPLUS

DOCUMENT NUMBER: 139:191432

TITLE: Identification of free-B-ring flavonoids as potent  
**cyclooxygenase 2 (COX-2) inhibitors**

INVENTOR(S): Jia, Qi; Nichols, Timothy C.; Rhoden, Eric E.; Waite, Scott

PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 23 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003165588	A1	20030904	US 2002-91362	20020301
WO 2003074065	A1	20030912	WO 2003-US6098	20030228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1487470	A1	20041222	EP 2003-743716	20030228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005519100	T2	20050630	JP 2003-572581	20030228
US 2004092458	A1	20040513	US 2003-469275	20030827
US 2005096281	A1	20050505	US 2004-932571	20040901
PRIORITY APPLN. INFO.:			US 2002-91362	A 20020301
			US 2002-104477	A2 20020322
			WO 2003-US6098	W 20030228
			US 2003-427746	A2 20030430
			US 2003-499742P	P 20030902

OTHER SOURCE(S): MARPAT 139:191432

ED Entered STN: 05 Sep 2003

AB The invention provides a method for inhibiting COX-2. The method

comprises administering a composition containing a free-B-ring flavonoid or a composition containing a mixture of free-B-ring flavonoids to a host in need thereof.

The invention also includes methods for the prevention and treatment of COX-2-mediated diseases and conditions. The method for preventing and treating COX-2-mediated diseases and conditions comprises administering to a host in need thereof an effective amount of a composition containing a free-B-ring

flavonoid or a composition containing a mixture of free-B-ring flavonoids and a pharmaceutically acceptable carrier.

IT 329900-75-6, **Cyclooxygenase 2**

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(free-B-ring flavonoids as **cyclooxygenase 2**  
**inhibitors**)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

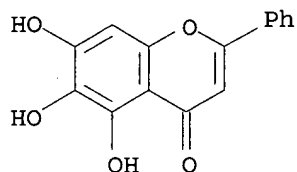
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 491-67-8, Baicalein 21967-41-9, Baicalin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
(free-B-ring flavonoids as **cyclooxygenase 2**  
**inhibitors**)

RN 491-67-8 CAPLUS

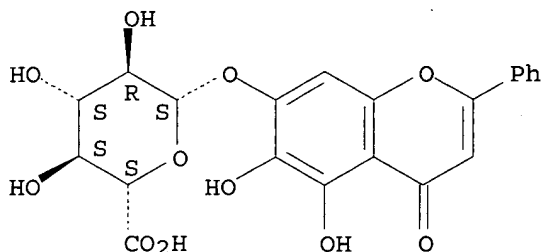
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

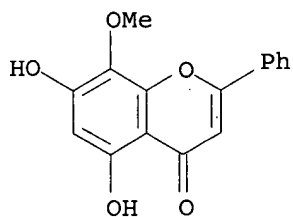


IT 632-85-9, Wogonin 29550-13-8, 5,6-Dihydroxy-7-methoxyflavone 38183-03-8, 7,8-Dihydroxyflavone

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(free-B-ring flavonoids as **cyclooxygenase 2**  
**inhibitors**)

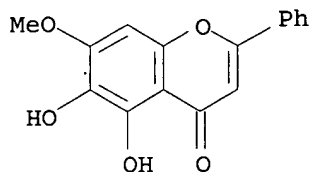
RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



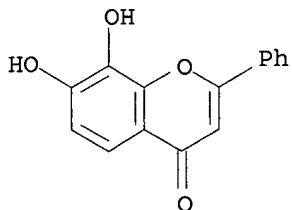
RN 29550-13-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6-dihydroxy-7-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 38183-03-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 7,8-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



L30 ANSWER 19 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:690440 CAPLUS

DOCUMENT NUMBER: 140:246066

TITLE: SAR: flavonoids and COX-2 inhibition

AUTHOR(S): Rosenkranz, Herbert S.; Thampatty, Bhavani P.

CORPORATE SOURCE: Department of Biomedical Sciences, Florida Atlantic University, Boca Raton, FL, 33431-0991, USA

SOURCE: Oncology Research (2003), Volume Date 2002, 13(12), 529-535

CODEN: ONREE8; ISSN: 0965-0407

PUBLISHER: Cognizant Communication Corp.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 04 Sep 2003

AB An anal. based upon structure-activity relationships (SAR) of the COX-2-inhibiting properties of flavonoids, a group of potential cancer

chemopreventive agents, reveals that there is a dual structural basis for these activities. Each of these structural determinants (pharmacophores) alone is sufficient for activity. One of the pharmacophores is a 2D 6.9 Å distance descriptor that spans the A and C rings and includes the 4-oxo and 7-hydroxyl moieties. The potency associated with that pharmacophore is determined by a series of structural modulators that can increase, decrease, or even abolish the COX-2-inhibiting potential associated with that pharmacophore. The second pharmacophore describes a para-substituted phenolic B ring that requires unsubstituted meta and ortho positions. Based upon this, it indicates that hydroxylation at the 4'-position and a free 5'-position are sufficient for COX-2-inhibiting activity. The potency associated with this pharmacophore is modulated by log P2 and by the mol. weight

IT 329900-75-6, **Cyclooxygenase-2**

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(structure-activity relationship of flavonoids as COX-  
2 inhibitors)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

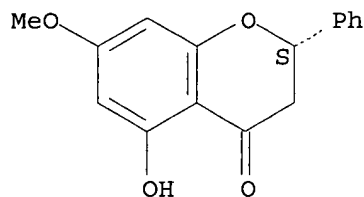
IT 480-37-5, Pinostrobin 480-40-0, Chrysin 487-26-3  
, Flavanone 491-78-1, 5-Hydroxyflavone 520-28-5,  
5-Hydroxy-7-methoxyflavone 525-82-6, Flavone 548-83-4,  
3,5,7-Trihydroxyflavone 574-12-9, Isoflavone 577-85-5,  
3-Hydroxyflavone 3034-04-6, 6-Methoxyflavanone 4250-77-5  
, 6-Hydroxyflavanone 6665-83-4, 6-Hydroxyflavone  
6665-86-7, 7-Hydroxyflavone 17348-76-4  
19725-47-4, 2'-Methoxyflavone 38183-03-8,  
7,8-Dihydroxyflavone 42079-78-7, 5-Methoxyflavone  
55947-36-9, 5-Methoxyflavanone 71592-46-6,  
3',6-Dihydroxyflavone 93176-00-2, 6-Methoxyflavonol  
108238-40-0, 3',7-Dihydroxyflavone

RL: PAC (Pharmacological activity); PRP (Properties); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(structure-activity relationship of flavonoids as COX-  
2 inhibitors)

RN 480-37-5 CAPLUS

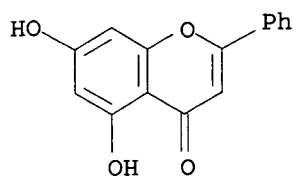
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-7-methoxy-2-phenyl-, (2S)-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

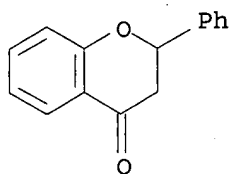


RN 480-40-0 CAPLUS

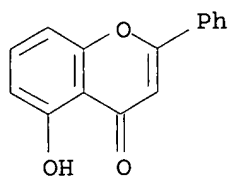
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



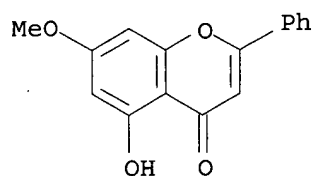
RN 487-26-3 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-phenyl- (9CI) (CA INDEX NAME)



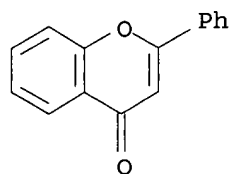
RN 491-78-1 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



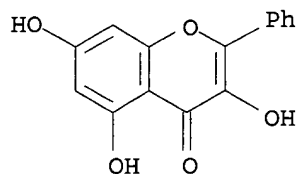
RN 520-28-5 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5-hydroxy-7-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



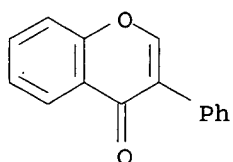
RN 525-82-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



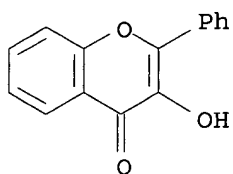
RN 548-83-4 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



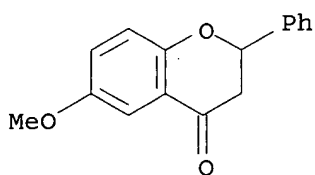
RN 574-12-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



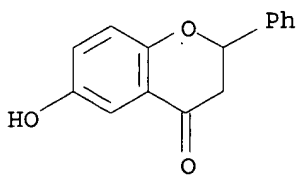
RN 577-85-5 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-phenyl-, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 3034-04-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)

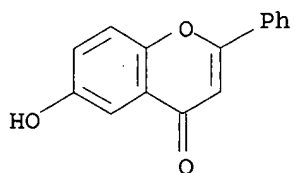


RN 4250-77-5 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-6-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



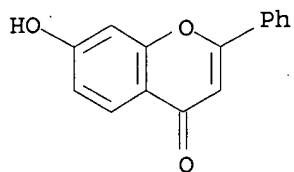
RN 6665-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



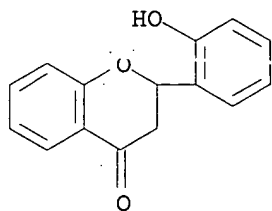
RN 6665-86-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



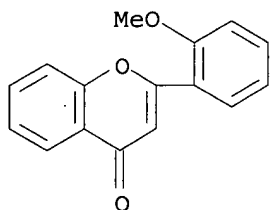
RN 17348-76-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-(2-hydroxyphenyl)- (9CI) (CA INDEX NAME)



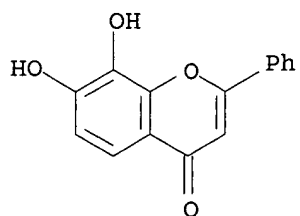
RN 19725-47-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)



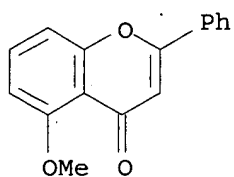
RN 38183-03-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 7,8-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



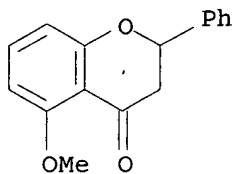
RN 42079-78-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



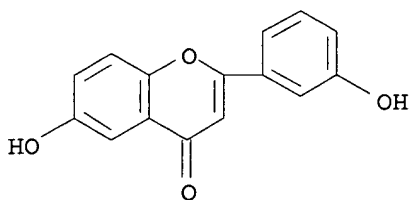
RN 55947-36-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



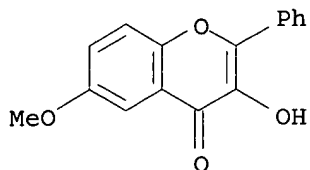
RN 71592-46-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-hydroxy-2-(3-hydroxyphenyl)- (9CI) (CA INDEX NAME)



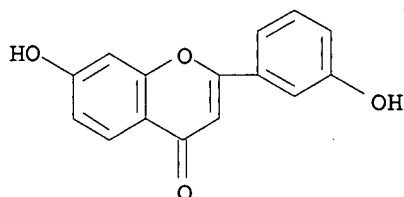
RN 93176-00-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-hydroxy-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 108238-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-hydroxy-2-(3-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 20 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:598189 CAPLUS

DOCUMENT NUMBER: 140:70453

TITLE: Pharmacological evaluation of several major ingredients of Chinese herbal medicines in human hepatoma Hep3B cells

AUTHOR(S): Chou, C. C.; Pan, S. L.; Teng, C. M.; Guh, J. H.

CORPORATE SOURCE: College of Medicine, Pharmacological Institute, National Taiwan University, Taipei, Taiwan

SOURCE: European Journal of Pharmaceutical Sciences (2003), 19(5), 403-412

CODEN: EPSCED; ISSN: 0928-0987

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 05 Aug 2003

AB Long-dan-tan (Chinese name) is one of the most common herbal medicines used by Chinese people with chronic liver disease. Accumulated anecdotal evidence suggests that Long-dan-tan may show a beneficial effect in patients with hepatocellular carcinoma. Long-dan-tan is made from five plants: Gentiana root, Scutellaria root, Gardenia fruit, Alisma rhizome, and Bupleurum root. In this study, we have examined the cytotoxic effects of the five major ingredients isolated from the above plants, i.e. gentiopicroside, baicalein, geniposide, alisol B acetate and saikosaponin-d, resp., on human hepatoma Hep3B cells. Annexin V immunofluorescence detection, DNA fragmentation assays and FACScan anal. of propidium iodide-staining cells showed that gentiopicroside, baicalein, and geniposide had little effect, whereas alisol B acetate and saikosaponin-d profoundly induced apoptosis in Hep3B cells. Alisol B acetate, but not saikosaponin-d, induced G2/M arrest of the cell cycle as well as a significant increase in caspase-3 activity. Interestingly, baicalein by itself induced an increase in H2O2 generation and the subsequent NF- $\kappa$ B activation; furthermore, it effectively inhibited the transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1)-induced caspase-3

activation and cell apoptosis. We suggest that alisol B acetate and saikosaponin-d induced cell apoptosis through the caspase-3-dependent and -independent pathways, resp. Instead of inducing apoptosis, baicalein inhibits TGF- $\beta$ 1-induced apoptosis via increase in cellular H2O2 formation and NF- $\kappa$ B activation in human hepatoma Hep3B cells.

IT 491-67-8, Baicalein

RL: DMA (Drug mechanism of action); NPO (Natural product

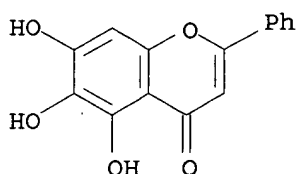
occurrence); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(pharmacol. evaluation of several major ingredients of Chinese herbal medicines Long-dan-tan in human hepatoma Hep3B cells)

RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 21 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:557093 CAPLUS

DOCUMENT NUMBER: 139:390885

TITLE: Inhibition of Cancer Cell Proliferation and Prostaglandin E2 Synthesis by Scutellaria Baicalensis  
AUTHOR(S): Zhang, David Y.; Wu, Josephine; Ye, Fei; Xue, Li; Jiang, Shiquan; Yi, Jizu; Zhang, Wandu; Wei, Huachen; Sung, Max; Wang, Wayne; Li, Xiaoping

CORPORATE SOURCE: Department of Pathology, Mount Sinai School of Medicine, New York, NY, 10029, USA

SOURCE: Cancer Research (2003), 63(14), 4037-4043  
CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Jul 2003

AB Scutellaria baicalensis is a widely used Chinese herbal medicine that has been used historically in anti-inflammatory and anticancer therapy. The purpose of this study is to verify its anticancer activity on head and neck squamous cell carcinoma (HNSCC) in vitro and in vivo and to investigate its effect on cyclooxygenase-2 (COX-2), which converts arachidonic acid to prostaglandin E2 (PGE2) and is highly expressed in HNSCC. Two human HNSCC cell lines (SCC-25 and KB) and a nontumorigenic cell line (HaCaT) were tested in vitro for growth inhibition, proliferation cell nuclear antigen expression, and COX-2 activity and expression after treatment with Scutellaria baicalensis extract. Its effects were compared with those of baicalein (a flavonoid isolated from Scutellaria baicalensis), indomethacin (a nonselective COX inhibitor), and celecoxib (a selective COX-2 inhibitor). Four nude mice with s.c. inoculation of KB cells were tested for its anticancer activity in vivo by oral administration of Scutellaria baicalensis at a dose of 1.5 mg/mouse (75 mg/kg), five times/wk for 7 wk. Scutellaria baicalensis and other agents demonstrated a strong growth inhibition in both tested human HNSCC

cell lines. No growth inhibition of HaCaT cells was observed with *Scutellaria baicalensis*. The IC50s were 150 µg/mL for *Scutellaria baicalensis*, 25 µM for celecoxib, and 75 µM for baicalein and indomethacin. *Scutellaria baicalensis*, as well as celecoxib and indomethacin, but not baicalein, suppressed proliferation cell nuclear antigen expression and PGE2 synthesis in both cell types. *Scutellaria baicalensis* inhibited COX-2 expression, whereas celecoxib inhibited COX-2 activity directly. A 66% reduction in tumor mass was observed in the nude mice.

*Scutellaria baicalensis* selectively and effectively inhibits cancer cell growth in vitro and in vivo and can be an effective chemotherapeutic agent for HNSCC. Inhibition of PGE2 synthesis via suppression of COX-2 expression may be responsible for its anticancer activity. Differences in biol. effects of *Scutellaria baicalensis* compared with baicalein suggest the synergistic effects among components in *Scutellaria baicalensis*.

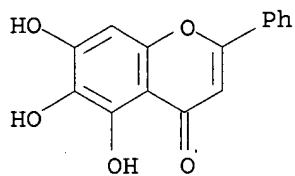
IT 491-67-8, Baicalein

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comparison compound; inhibition of cancer cell proliferation and prostaglandin E2 synthesis by *Scutellaria baicalensis*)

RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



IT 329900-75-6, Cyclooxygenase-2

RL: BSU (Biological study, unclassified); BIOL (Biological study) (suppression of COX-2 expression; inhibition of cancer cell proliferation and prostaglandin E2 synthesis by *Scutellaria baicalensis*)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 22 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:22700 CAPLUS

DOCUMENT NUMBER: 138:66652

TITLE: Method for generating, screening, and dereplicating natural product libraries for the discovery of therapeutic agents

INVENTOR(S): Jia, Qi; Hong, Mei-Feng

PATENT ASSIGNEE(S): Unigen Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 111 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003002134      A1      20030109      WO 2002-US20602      20020627
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
    CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
    GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
    LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
    PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
    UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
    CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
    BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2451844          AA      20030109      CA 2002-2451844      20020627
US 2003113797      A1      20030619      US 2002-185758      20020627
EP 1411958          A1      20040428      EP 2002-746757      20020627
R:   AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2005504958      T2      20050217      JP 2003-508373      20020627
PRIORITY APPLN. INFO.:
US 2001-301523P      P      20010627
WO 2002-US20602      W      20020627

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OTHER SOURCE(S): MARPAT 138:66652

ED Entered STN: 10 Jan 2003

AB The invention relates generally to a technol. platform, referred to as Phytologix™ for the discovery of novel bioactive pharmaceutical, nutraceutical and cosmetic agents. Specifically, the invention includes an integrated system for the collection of medicinal plants and creation of informatic databases related to these plants. The invention also relates to an improved standardized extraction and fractionation process, which provides significant advantages over the prior art in the terms of simplicity, efficiency of the sepns., the quality of the library, low cost of the process and extraordinary throughput. The invention provides details to the structure dereplication process by utilizing the technol. such as HPLC/PDA/MS coupled with high throughput bioassay data and an internal pure compound library. It has been proven to be much more efficient and accurate when compared to the prior art methods. Finally, the Phytologix™ platform has been approved as a realistic and efficient process by the determination of the whole process of discovery and development

of

natural COX-2 and tyrosinase inhibitors as novel nutraceutical and cosmetic products.

IT **329900-75-6, Cyclooxygenase 2**

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibition; method for generating, screening, and dereplicating natural product libraries for discovery of therapeutic agents)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

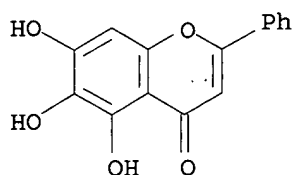
IT **491-67-8P, Baicalein**

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(method for generating, screening, and dereplicating natural product libraries for discovery of therapeutic agents)

RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



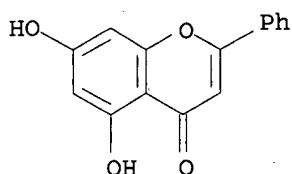
IT 480-40-0

RL: PRP (Properties)

(method for generating, screening, and dereplicating natural product libraries for discovery of therapeutic agents)

RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 23 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:953358 CAPLUS

DOCUMENT NUMBER: 139:127612

TITLE: The role of the phenethyl ester of caffeic acid (CAPE) in the inhibition of rat lung cyclooxygenase activity by propolis

AUTHOR(S): Rossi, Antonietta; Longo, Rocco; Russo, Alessandra; Borrelli, Francesca; Sautebin, Lidia

CORPORATE SOURCE: Department of Experimental Pharmacology, University of Naples Federico II, Naples, Italy

SOURCE: Fitoterapia (2002), 73(Suppl. 1), S30-S37

CODEN: FTRPAE; ISSN: 0367-326X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 17 Dec 2002

AB In this study we investigated the effect of an ethanolic extract of propolis, with and without CAPE, and some of its components on cyclooxygenase (COX) activity. Propolis (0.00003-0.03%) significantly and concentration-dependently inhibited COX activity from lung homogenate of saline- or LPS-treated rats. Same results were obtained with CAPE (0.1-100  $\mu$ M). COX activity from lung homogenate of saline- or LPS-treated rats was also inhibited by galangin (0.1-100  $\mu$ M), although the inhibition induced by the lowest concentration was not significant. Caffeic, ferulic, cinnamic and chlorogenic acids and pinocembrin, (0.1-100  $\mu$ M) did not affect COX activity. The inhibition curves showed that CAPE and propolis were equipotent inhibitors, whereas galangin was significantly ( $P < 0.001$ ) less potent than propolis and CAPE. In order to better investigate the role of CAPE, we tested the action of an ethanolic extract of propolis (0.00003-0.03%) without CAPE. This extract significantly and concentration-dependently inhibited COX activity from lung homogenate of saline- or LPS-treated rats, however, it resulted to be approx. 10 times less potent than the extract containing CAPE.

The anal. of the inhibition curves of the extract with and without CAPE showed a significant ( $P < 0.001$ ) difference. These results suggest that both CAPE and galangin contribute to the overall activity of propolis, CAPE being more effective.

IT 329900-75-6, Cyclooxygenase 2

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(propolis, CAPE, and galangin in cyclooxygenase inhibition in lung)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

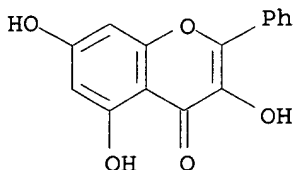
IT 548-83-4, Galangin

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);  
USES (Uses)

(propolis, CAPE, and galangin in cyclooxygenase inhibition in lung)

RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 24 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:896595 CAPLUS

DOCUMENT NUMBER: 139:46663

TITLE: The inhibitory effect of propolis and caffeic acid phenethyl ester on cyclooxygenase activity in J774 macrophages

AUTHOR(S): Rossi, A.; Ligresti, A.; Longo, R.; Russo, A.; Borrelli, F.; Sautebin, L.

CORPORATE SOURCE: Department of Experimental Pharmacology, University of Naples, Naples, Italy

SOURCE: Phytomedicine (2002), 9(6), 530-535  
CODEN: PYTOEY; ISSN: 0944-7113

PUBLISHER: Urban & Fischer Verlag GmbH & Co. KG

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 26 Nov 2002

AB The effect of an ethanolic extract of propolis, with and without CAPE, and some of its components on cyclooxygenase (COX-1 and COX-2) activity in J774 macrophages has been investigated. COX-1 and COX-2 activity, measured as prostaglandin E2 (PGE2) production, were concentration-dependently inhibited by propolis ( $3 + 10^{-3}$  -  $3 + 10^2$   $\mu\text{g/mL}$ ) with an  $\text{IC}_{50}$  of 2.7  $\mu\text{g/mL}$  and  $4.8 + 10^{-2}$   $\mu\text{g/mL}$ , resp. Among the compds. tested pinocembrin and caffeic, ferulic, cinnamic and chlorogenic acids did not affect the activity of COX isoforms. Conversely, caffeic acid phenethyl ester (CAPE) ( $2.8 + 10^{-4}$  -  $2.8 + 10^{-4}$   $\mu\text{g/mL}$ ;  $10^{-9}$  -  $10^{-4}$  M) and galangin ( $2.7 + 10^{-4}$  -  $2.7 + 10^{-4}$   $\mu\text{g/mL}$ ;  $10^{-9}$  -  $10^{-4}$  M) were effective, the last being about ten-twenty times less potent. In fact the  $\text{IC}_{50}$  of CAPE for COX-1 and COX-2 were  $4.4 + 10^{-1}$   $\mu\text{g/mL}$  ( $1.5 + 10^{-6}$  M)

and  $2 + 10^{-3}$   $\mu\text{g/mL}$  ( $6.3 + 10^{-9}$  M), resp. The  $\text{IC}_{50}$  of galangin were  $3.7 \mu\text{g/mL}$  ( $15 + 10^{-6}$  M) and  $3 + 10^{-2} \mu\text{g/mL}$  ( $120 + 10^{-9}$  M), for COX-1 and COX-2 resp. To better investigate the role of CAPE, we tested the action of the ethanolic extract of propolis deprived of CAPE, which resulted about ten times less potent than the extract with CAPE in the inhibition of both COX-1 and COX-2, with an  $\text{IC}_{50}$  of  $30 \mu\text{g/mL}$  and  $5.3 + 10^{-1} \mu\text{g/mL}$ , resp. Moreover the comparison of the inhibition curves showed a significant difference. These results suggest that both CAPE and galangin contribute to the overall activity of propolis, CAPE being more effective.

IT 329900-75-6, COX 2

RL: BSU (Biological study, unclassified); BIOL (Biological study) (propolis and caffeic acid phenethyl ester **inhibitory** effect on cyclooxygenase activity in J774 macrophages and active components therein)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

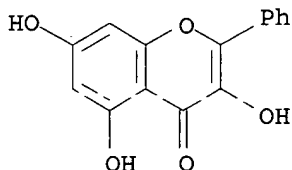
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 548-83-4, Galangin

RL: PAC (Pharmacological activity); BIOL (Biological study) (propolis and caffeic acid phenethyl ester **inhibitory** effect on cyclooxygenase activity in J774 macrophages and active components therein)

RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 25 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:754 CAPLUS

DOCUMENT NUMBER: 136:197008

TITLE: Novel compounds from Piper methysticum Forst (Kava Kava) roots and their effect on cyclooxygenase enzyme

AUTHOR(S): Wu, Di; Nair, Muraleedharan G.; DeWitt, David L.

CORPORATE SOURCE: Bioactive Natural Products and Phytoceuticals  
Department of Horticulture and National Food Safety  
and Toxicology Center and Department of Biochemistry,  
Michigan State University, East Lansing, MI, 48824,  
USA

SOURCE: Journal of Agricultural and Food Chemistry (2002),  
50(4), 701-705

CODEN: JAFCAU; ISSN: 0021-8561

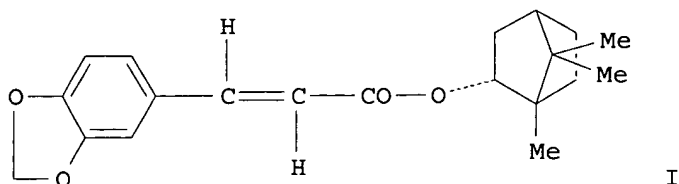
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 31 Dec 2001

GI



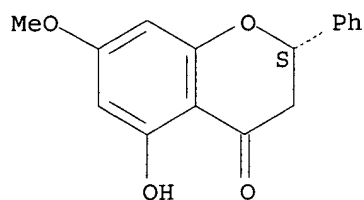
AB Milled *Piper methysticum* roots were extracted sequentially with hot water and methanol. Cyclooxygenase (COX) enzyme inhibitory assay directed purification of the methanol extract yielded bornyl esters of 3,4-methylenedioxy cinnamic acid (I) and cinnamic acid (II), pinostrobin (III), flavokawain B (IV), and 5,7-dimethoxyflavanone (V). The structures of compds. I-V were accomplished by spectral expts. The aqueous extract contained previously reported kava lactones, as confirmed by TLC anal. Compds. III and V were isolated for the first time from kava kava roots. Compound IV showed the highest COX-I inhibitory activity at 100  $\mu\text{g/mL}$ . All the compds. tested gave good COX-I and moderate COX-II enzyme inhibitory activities at 100  $\mu\text{g/mL}$ . This is the first report of COX-I and -II inhibitory activities for compds. 1-5.

IT 480-37-5, Pinostrobin 36052-66-1, 5,7-Dimethoxyflavanone  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)  
 (cyclooxygenase inhibitors from *Piper methysticum*)

RN 480-37-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-7-methoxy-2-phenyl-, (2S) - (9CI) (CA INDEX NAME)

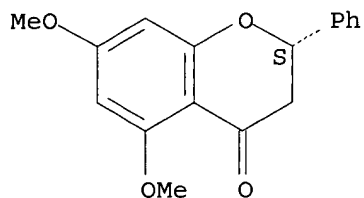
Absolute stereochemistry. Rotation (-).



RN 36052-66-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dimethoxy-2-phenyl-, (2S) - (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



IT 329900-75-6, Cyclooxygenase 2

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitor; cyclooxygenase inhibitors from *Piper methysticum*)

RN 329900-75-6 CAPLUS  
CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 26 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:591840 CAPLUS

DOCUMENT NUMBER: 135:366461

TITLE: **Inhibition of TPA-induced  
cyclooxygenase-2 expression and skin  
inflammation in mice by wogonin, a plant flavone from  
Scutellaria radix**

AUTHOR(S): Park, B. K.; Heo, M. Y.; Park, H.; Kim, H. P.

CORPORATE SOURCE: Kangwon National University, College of Pharmacy,  
Chunchon, 200-701, S. Korea

SOURCE: European Journal of Pharmacology (2001), 425(2),  
153-157

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 15 Aug 2001

AB Wogonin (5,7-dihydroxy-8-methoxyflavone), isolated from Scutellaria radix, was previously reported to inhibit the expression and activity of the enzyme cyclooxygenase-2 in lipopolysaccharide (LPS)-stimulated cells of a mouse macrophage cell line, RAW 264.7. Here, to find in vivo effects, inhibition by wogonin of 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced cyclooxygenase-2 expression and anti-inflammatory activity in vivo were investigated. When applied topically to the dorsal skin of mice, wogonin at doses of 50-200 µg/site/treatment (total of five treatments in 3 days) inhibited cyclooxygenase-2 expression and prostaglandin E2 production induced by multiple treatments with TPA. At 200 µg/site/treatment, wogonin caused a 55.3% reduction of prostaglandin E2 production on the dorsal skin compared with an increased production in the TPA-treated control group. The same compound significantly inhibited mouse ear edema induced by TPA in both preventive (58.1% inhibition) as well as curative treatment (31.3% inhibition) schedules at 200 µg/ear/treatment. Inhibition of neutrophil infiltration was also observed. Therefore, wogonin may be beneficial for cyclooxygenase-2-related skin disorders.

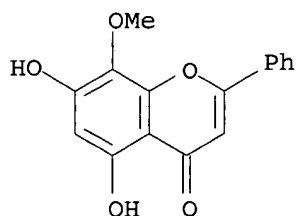
IT 632-85-9, Wogonin

RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(inhibition of TPA-induced cyclooxygenase-2  
expression and skin inflammation in mice by wogonin)

RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX  
NAME)



IT 329900-75-6, **Cyclooxygenase-2**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(inhibition of TPA-induced **cyclooxygenase-2**

expression and skin inflammation in mice by wogonin)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 27 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:575376 CAPLUS

DOCUMENT NUMBER: 136:465

TITLE: The plant flavonoid wogonin suppresses death of activated C6 rat glial cells by inhibiting nitric oxide production

AUTHOR(S): Kim, H.; Kim, Y. S.; Kim, S. Y.; Suk, K.

CORPORATE SOURCE: Graduate School of East-West Medical Science, Department of Herbal Pharmacology, Kyung Hee University, Tongdaemun-ku, Hoegi-dong, Seoul, 130-701, S. Korea

SOURCE: Neuroscience Letters (2001), 309(1), 67-71

CODEN: NELED5; ISSN: 0304-3940

PUBLISHER: Elsevier Science Ireland Ltd.

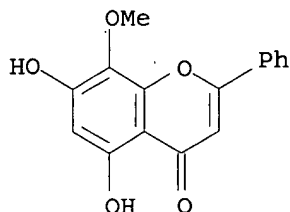
DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Aug 2001

AB Flavonoids are a group of low mol. weight polyphenolic compds. derived from plants. 5,7-Dihydroxy-8-methoxyflavone (Wogonin), a flavonoid originated from the root of *Scutellaria baicalensis* Georgi, has been shown to exert various anti-inflammatory effects such as inhibition of nitric oxide (NO) and prostaglandin E2 production in macrophages. Because glial cells have been previously shown to undergo NO-dependent apoptosis upon inflammatory activation and this auto-regulatory process may be neg. affected by exogenous factors possessing anti-inflammatory activities, we examined the effects of wogonin on NO production and activation-induced cell death of C6 rat glial cells. Activation of C6 glial cells with lipopolysaccharide (LPS), interferon- $\gamma$ , and tumor necrosis factor- $\alpha$  induced NO production followed by cell death. Pretreatment of C6 cells with wogonin before LPS and cytokine treatment dose-dependently inhibited NO production as well as death of activated C6 cells. Wogonin-mediated inhibition of NO production was accompanied by suppression of inducible nitric oxide synthase (iNOS) protein induction and nuclear factor kappa B (NF- $\kappa$ B) reporter activity. Wogonin, however, did not affect a NO donor-induced cytotoxicity. Taken together, our results indicate that wogonin inhibits activation-induced death of C6 glial cells by suppressing NO production, and these inhibitory effects of wogonin on NO production are exerted through

inhibition of NF- $\kappa$ B-mediated iNOS induction.  
 IT 632-85-9, Wogonin  
 RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);  
 USES (Uses)  
 (plant flavonoid wogonin suppresses death of activated C6 rat glial cells by inhibiting nitric oxide production)  
 RN 632-85-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 28 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:319721 CAPLUS

DOCUMENT NUMBER: 134:336233

TITLE: Flavones as inducible nitric oxide synthase

**inhibitors, cyclooxygenase-2**

**inhibitors, and potassium channel activators, and therapeutic use**

INVENTOR(S): Lee, Tony Jer-Fu; Chen, Yang Ling Ling

PATENT ASSIGNEE(S): Board of Trustees of Southern Illinois University, USA

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001030342	A1	20010503	WO 2000-US41396	20001020
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6806257	B1	20041019	US 2000-693130	20001020
PRIORITY APPLN. INFO.:			US 1999-160612P	P 19991020

OTHER SOURCE(S): MARPAT 134:336233

ED Entered STN: 04 May 2001

AB A method is provided for inhibiting expression of either iNOS or COX-2, or both in mammals using flavone compds., and pharmaceutically acceptable salts thereof. The present invention also provides a method of activating

potassium channels in mammals, as well as methods for treating septic shock, for inhibiting expression of angiotensin-converting enzyme, for treating or preventing aneurysms, and for reducing inflammation and related pathol. changes using these compds. Presently preferred compds. are oroxylin A (5,7-dihydroxy-6-methoxy flavone) and wogonin (5,7-dihydroxy-8-methoxy flavone).

IT 480-11-5, Oroxylin A 491-67-8, Baicalein

632-85-9, Wogonin 4431-41-8 18956-18-8

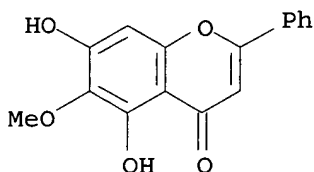
21967-41-9, Baicalin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavones as inducible NO synthase inhibitors, cyclooxygenase-2 inhibitors, and potassium channel activators, and therapeutic use)

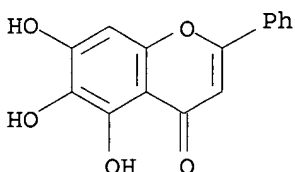
RN 480-11-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



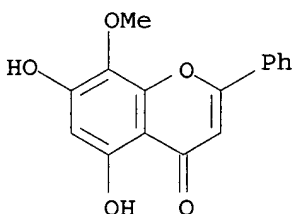
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 632-85-9 CAPLUS

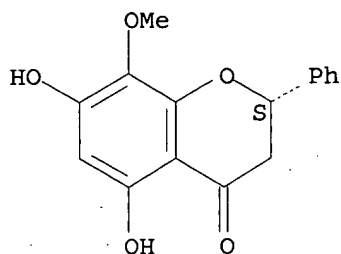
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 4431-41-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-8-methoxy-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

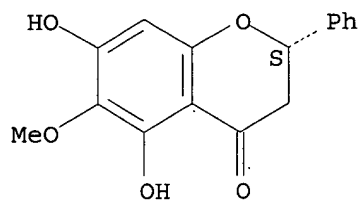
Absolute stereochemistry.



RN 18956-18-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-6-methoxy-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

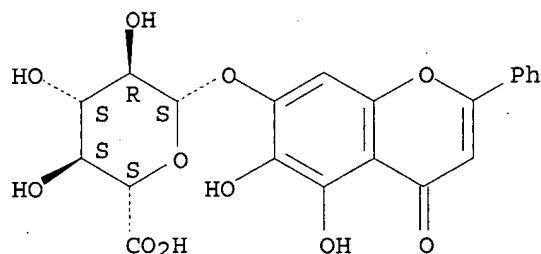
Absolute stereochemistry.



RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 329900-75-6, **Cyclooxygenase 2**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(flavones as inducible NO synthase **inhibitors**, **cyclooxygenase-2 inhibitors**, and potassium channel activators, and therapeutic use)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 29 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:293393 CAPLUS

DOCUMENT NUMBER: 135:102178

TITLE: Wogonin, baicalin, and baicalein **inhibition** of inducible nitric oxide synthase and **cyclooxygenase-2** gene expressions induced by nitric oxide synthase **inhibitors** and lipopolysaccharide

AUTHOR(S): Chen, Y.-C.; Shen, S.-C.; Chen, L.-G.; Lee, T. J.-F.; Yang, L.-L.

CORPORATE SOURCE: Graduate Institute of Pharmacognosy Science, Taipei Medical University, Taipei, Taiwan

SOURCE: Biochemical Pharmacology (2001), 61(11), 1417-1427  
CODEN: BCPA6; ISSN: 0006-2952

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 25 Apr 2001

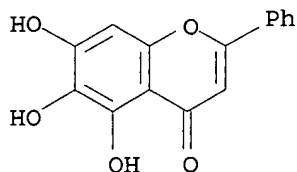
AB We previously reported that oroxylin A, a polyphenolic compound, was a potent inhibitor of lipopolysaccharide (LPS)-induced expression of inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2). In the present study, three oroxylin A structurally related polyphenols isolated from the Chinese herb Huang Qui, namely baicalin, baicalein, and wogonin, were examined for their effects on LPS-induced nitric oxide (NO) production and iNOS and COX-2 gene expressions in RAW 264.7 macrophages. The results indicated that these three polyphenolic compds. inhibited LPS-induced NO production in a concentration-dependent manner without a notable cytotoxic effect on these cells. The decrease in NO production was in parallel with the inhibition by these polyphenolic compds. of LPS-induced iNOS gene expression. However, these three compds. did not directly affect iNOS enzyme activity. In addition, wogonin, but not baicalin or baicalein, inhibited LPS-induced prostaglandin E2 (PGE2) production and COX-2 gene expression without affecting COX-2 enzyme activity. Furthermore, N-nitro-L-arginine (NLA) and N-nitro-L-arginine Me ester (L-NAME) pretreatment enhanced LPS-induced iNOS (but not COX-2) protein expression, which was inhibited by these three polyphenolic compds. Wogonin, but not baicalin or baicalein, similarly inhibited PGE2 production and COX-2 protein expression in NLA/LPS or L-NAME/LPS-co-treated RAW 264.7 cells. These results indicated that co-treatment with NOS inhibitors and polyphenolic compds. such as wogonin effectively blocks acute production of NO and, at the same time, inhibits expression of iNOS and COX-2 genes.

IT 491-67-8P, Baicalein 632-85-9P, Wogonin 21967-41-9P, Baicalin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(wogonin baicalin and baicalein **inhibit** inducible nitric oxide synthase and **cyclooxygenase-2** gene expression)

RN 491-67-8 CAPLUS

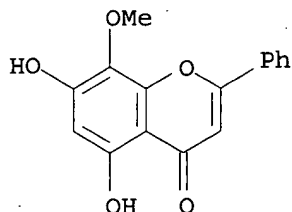
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX

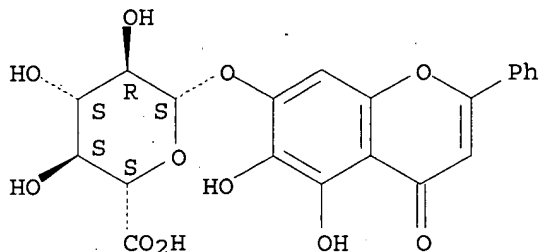
NAME)



RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 329900-75-6, **cyclooxygenase-2**

RL: BFR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (wogonin baicalin and baicalein **inhibit** inducible nitric oxide synthase and **cyclooxygenase-2** gene expression)

RN 329900-75-6 CAPLUS

CN Synthetase, prostaglandin endoperoxide, 2 (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 30 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:59686 CAPLUS

DOCUMENT NUMBER: 134:222030

TITLE: **Inhibition** of inducible nitric oxide synthase and **cyclooxygenase-2**

expression by flavonoids in macrophage J774A.1

AUTHOR(S): Raso, Giuseppina Mattace; Meli, Rosaria; Di Carlo, Giulia; Pacilio, Maria; Di Carlo, Raffaele

CORPORATE SOURCE: Department of Experimental Pharmacology, University of Naples "Federico II", Naples, Italy

SOURCE: Life Sciences (2001), 68(8), 921-931

CODEN: LIFSAK; ISSN: 0024-3205

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 25 Jan 2001

AB The present study focuses on the effect of various naturally occurring

flavonoids (apigenin, galangin, morin, naringenin, quercetin, and silymarin) on nitric oxide (NO) and prostaglandin E2 (PGE2) production induced by lipopolysaccharide (LPS) in the macrophage cell line J774A.1. Moreover, the authors evaluated flavonoid modulation of inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2) enzyme expression by western blot anal. Apigenin and quercetin (0.5-50  $\mu$ M) were the most potent inhibitors of NO production and this effect was concentration-dependent

and

significant at 5 and 50  $\mu$ M. These data were consistent with the modulation of iNOS enzyme expression. A similar pattern was observed considering the inhibitory effect of flavonoids on LPS-induced PGE2 release and COX-2 expression. Quercetin, galangin, apigenin, and naringenin markedly decreased PGE2 release and COX-2 expression in a concentration-dependent manner. This study suggests that inhibition of iNOS

and

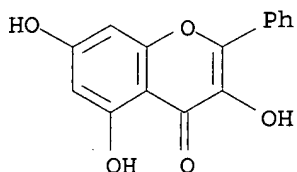
COX-2 expression by flavonoids may be one of the mechanisms responsible for their anti-inflammatory effects.

IT 548-83-4, Galangin

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study) (nitric oxide synthase and **cyclooxygenase-2** expression inhibition by flavonoids in macrophage J774A.1)

RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 31 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:736092 CAPLUS

DOCUMENT NUMBER: 134:65939

TITLE: Wogonin inhibits inducible prostaglandin E2 production in macrophages

AUTHOR(S): Wakabayashi, I.; Yasui, K.

CORPORATE SOURCE: School of Medicine, Department of Hygiene and Preventive Medicine, Yamagata University, Yamagata, 990-9585, Japan

SOURCE: European Journal of Pharmacology (2000), 406(3), 477-481

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

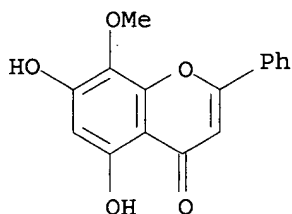
LANGUAGE: English

ED Entered STN: 18 Oct 2000

AB Effects of 5,7-dihydroxy-8-methoxyflavone (wogonin) on cyclooxygenase-2 (COX-2)-mediated prostaglandin E2 production in macrophages were investigated. Stimulation with lipopolysaccharide (LPS; 1  $\mu$ g/mL) greatly increased prostaglandin E2 production in RAW 264.7 murine macrophages. The stimulated prostaglandin E2 production was abolished in the presence of indomethacin (1  $\mu$ M) or cycloheximide (2  $\mu$ M), suggesting that the increased production of prostaglandin E2 by LPS reflects the inducible synthesis of prostaglandin

E2 by COX-2. Wogonin (0.1-50  $\mu\text{M}$ ) concentration-dependently inhibited inducible prostaglandin E2 production. Wogonin at concns. as low as 0.5  $\mu\text{M}$  directly attenuated enzymic activity of COX-2. The protein expression of COX-2 was depressed by wogonin at concns. of 10  $\mu\text{M}$  and more. These results suggest that wogonin decreases inducible prostaglandin E2 production in macrophages by inhibiting both COX-2 activity and COX-2 expression. The former action requires much lower doses of wogonin. These wogonin actions may explain, in part, its anti-inflammatory action.

IT 632-85-9, Wogonin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (wogonin inhibits inducible prostaglandin E2 production in macrophages)  
 RN 632-85-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 32 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:429383 CAPLUS

DOCUMENT NUMBER: 133:190454

TITLE: Isolation of COX-2 inhibitors from *Alpinia officinarum*

AUTHOR(S): Kang, Sam Sik; Kim, Ju Sun; Son, Kun Ho; Kim, Hyun Pyo; Chang, Hyeun Wook

CORPORATE SOURCE: Natural Products Research Institute, Seoul National University, Seoul, 110-460, S. Korea

SOURCE: Saengyak Hakhoechi (2000), 31(1), 57-62  
 CODEN: SYHJAM; ISSN: 0253-3073

PUBLISHER: Korean Society of Pharmacognosy

DOCUMENT TYPE: Journal

LANGUAGE: Korean

ED Entered STN: 28 Jun 2000

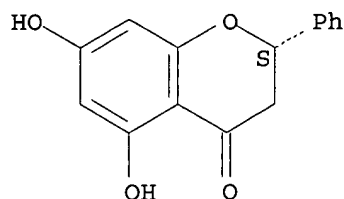
AB By bioassay-guided fractionation followed by chromatog. separation of the MeOH extract of *Alpinia* rhizome, five COX-2 inhibitors were isolated and characterized as pinocembrin, galangin 3-Me ether, galangin, kaempferid, and 5-hydroxy-7-(4''-hydroxy-3''-methoxyphenyl)-1-phenyl-3-heptanone.

IT 480-39-7, Pinocembrin 548-83-4, Galangin  
 6665-74-3, Galangin 3-Methyl ether  
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (cytochrome c oxidase-2 inhibitors from *Alpinia officinarum*)

RN 480-39-7 CAPLUS

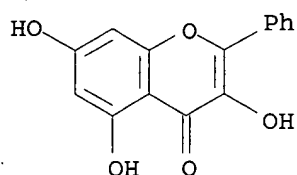
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



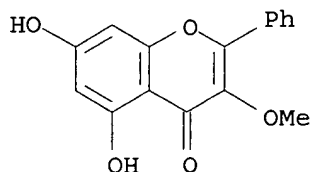
RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 6665-74-3 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



L30 ANSWER 33 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:221498 CAPLUS

DOCUMENT NUMBER: 133:115041

TITLE: Oroxylin A **inhibition** of  
lipopolysaccharide-induced iNOS and COX-  
2 gene expression via suppression of  
**nuclear factor-κ**  
**B** activation

AUTHOR(S): Chen, Y.-C.; Yang, L.-L.; Lee, T. J.-F.

CORPORATE SOURCE: Department of Pharmacology, Southern Illinois  
University, School of Medicine, Springfield, IL, USA

SOURCE: Biochemical Pharmacology (2000), 59(11), 1445-1457

CODEN: BCPCA6; ISSN: 0006-2952

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 06 Apr 2000

AB Polyphenols are major components of many traditional herbal remedies, which exhibit several beneficial effects including anti-inflammation. The exact mechanism of the anti-inflammatory action of polyphenols, however, has not been determined. In the present study, we examined the effects of eight different polyphenols isolated from Chinese herbs, including two flavonoids (myricitrin and oroxylin A), four ellagitannins

(penta-O-galloyl- $\beta$ -glucopyranose, woodfordin C, oenothien B, and cuphiin D1), and two anthraquinones (emodin and physcion), on lipopolysaccharide (LPS)-induced nitric oxide (NO) production, and inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2) gene expression in RAW264.7 macrophages. The results indicated that only oroxylin A and emodin concentration-dependently inhibited LPS-induced NO production. The remaining

compds. slightly inhibited LPS-induced NO production only at the highest concentration examined. Furthermore, oroxylin A inhibited the expression of LPS-induced iNOS and COX-2 proteins and mRNAs without an appreciable cytotoxic effect on RAW264.7 cells. Emodin also inhibited LPS-induced iNOS protein as potently as oroxylin A, but it inhibited LPS-induced iNOS mRNA expression only slightly and did not affect COX-2 mRNA and proteins. This was consistent with the findings that oroxylin A but not emodin or physcion inhibited prostaglandin E2 synthesis induced by LPS. The inhibitory effects of oroxylin A on LPS-induced iNOS and COX-2 gene expression were also demonstrated in Bcl-2-overexpressing RAW264.7 macrophages, suggesting that oroxylin A inhibition of iNOS and COX-2 expression was not due to its antioxidant effect. Furthermore, oroxylin A but not emodin blocked nuclear factor- $\kappa$ B (NF- $\kappa$ B) binding and transcriptional activation associated with decreased p65 proteins in the nucleus induced by LPS. These results indicated that oroxylin A, an active component in Huang Qin, inhibited LPS-induced iNOS and COX-2 gene expression by blocking NF- $\kappa$ B activation, whereas emodin inhibition of LPS-induced iNOS expression may be mediated by a different transcription factor.

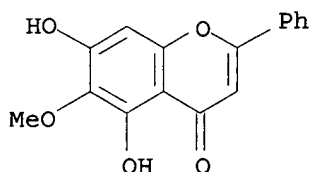
IT 480-11-5, Oroxylin A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oroxylin A inhibition of lipopolysaccharide-induced iNOS and COX-2 gene expression via suppression of nuclear factor- $\kappa$  B activation)

RN 480-11-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 34 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:394438 CAPLUS

DOCUMENT NUMBER: 127:90161

TITLE: Casein kinase II is a selective target of HIV-1 transcriptional inhibitors

AUTHOR(S): Critchfield, J. William; Coligan, John E.; Folks, Thomas M.; Butera, Salvatore T.

CORPORATE SOURCE: Retrovirus Diseases Branch, Division Acquired Immunodeficiency Syndrome, Sexually Transmitted Diseases, Tuberculosis Laboratory Research, Centers

SOURCE: Disease Control Prevention, Atlanta, GA, 30333, USA  
Proceedings of the National Academy of Sciences of the  
United States of America (1997), 94(12), 6110-6115  
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

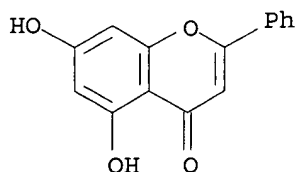
ED Entered STN: 26 Jun 1997

AB The identification of cellular factors that are required to complete various steps of the HIV-1 life cycle may lead to the development of new therapeutics. One key step, transcription from the integrated provirus, is inhibited by members of two distinct classes of compds., the flavonoids and the benzothiophenes, via an unknown mechanism, possibly involving a cellular factor. A marked specificity toward inhibiting HIV-1 transcription is evidenced by the ability of drug-treated cells to retain their proliferative and differentiation capabilities. In addition, the compds. do not impede the activation and function of the transcriptional factor NF- $\kappa$ B. Here we report on the identification of several cellular proteins that mediate the HIV-1 transcriptional inhibitory property of the flavonoid chrysin. Chemical and immunol. analyses identified these cellular proteins as the individual subunits of casein kinase II (CKII). Though structurally unrelated to chrysin, an HIV-1 inhibitory benzothiophene also bound selectively to CKII. Both chrysin and the benzothiophenes inhibited human recombinant CKII enzymic activity and showed competitive kinetics with respect to ATP, analogous to the classic CKII inhibitor 5,6-dichloro-1- $\beta$ -D-ribofuranosylbenzimidazole (DRB). Moreover, DRB potently inhibited HIV-1 expression in chronically infected cells. CKII may regulate HIV-1 transcription by phosphorylating cellular proteins involved in HIV-1 transactivation that contain multiple CKII phosphorylation consensus sequences.

IT 480-40-0, Chrysin  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(casein kinase II is a selective target of HIV-1 transcriptional inhibitors)

RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 35 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:54402 CAPLUS

DOCUMENT NUMBER: 126:139673

TITLE: Selective inhibition of tumor necrosis factor-induced vascular cell adhesion molecule-1 gene expression by a novel flavonoid. Lack of effect on transcription factor NF- $\kappa$ B

AUTHOR(S): Woelle, Joachim; Hill, Russell R.; Ferguson, Erika;

CORPORATE SOURCE: Devall, Larry J.; Trivedi, B. K.; Newton, Roger S.; Saxena, Uday  
Dep. Atherosclerosis Therapeutics & Chem., Warner Lambert Co., Ann Arbor, MI, USA  
SOURCE: Arteriosclerosis, Thrombosis, and Vascular Biology (1996), 16(12), 1501-1508  
CODEN: ATVBFA; ISSN: 1079-5642  
PUBLISHER: American Heart Association  
DOCUMENT TYPE: Journal  
LANGUAGE: English

ED Entered STN: 25 Jan 1997

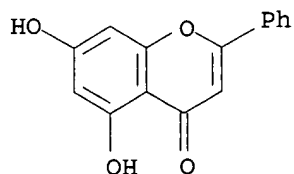
AB In the present studies, we examined the effect of flavonoids on the endothelial cell expression of adhesion mol.s., an early step in inflammation and atherogenesis. Addition of tumor necrosis factor- $\alpha$  (TNF) to human aortic endothelial cells (HAECs) led to the induction of vascular cell adhesion mol.-1 (VCAM-1) expression and enhancement in expression of intercellular adhesion mol.-1 (ICAM-1). A flavonoid, 2-(3-amino-phenyl)-8-methoxy-chromene-4-one (PD 098063), markedly inhibited TNF-induced VCAM-1 cell-surface expression in a concentration-dependent fashion with half-maximal inhibition at 19  $\mu$ mol/L but had no effect on ICAM-1 expression. Another structurally distinct flavonoid, 2-phenyl-chromene-4-one, similarly selectively decreased VCAM-1 expression. The inhibition in cell-surface expression of VCAM-1 by PD 098063 correlated with decreases in steady-state mRNA levels, but there was no effect on ICAM-1 mRNA levels. The decrease in VCAM-1 mRNA levels was not due to changes in mRNA stability but rather resulted from a reduction in the rate of transcription of the gene. However, electrophoretic mobility shift assays using nuclear exts. from TNF-induced HAECs treated with PD 098063 failed to show a decrease in the activation of NF- $\kappa$ B, indicating that inhibition of activation of this transcription factor may not be its mode of action. Similarly, PD 098063 did not affect chloramphenicol acetyltransferase reporter gene activity in TNF-inducible minimal VCAM-1 promoter constructs containing two NF- $\kappa$ B sites, suggesting that the compound does not affect the transactivation driven by these sites. We conclude that this compound selectively blocks agonist-induced VCAM-1 protein and gene expression in HAECs by NF- $\kappa$ B-independent mechanism(s).

IT 480-40-0 491-78-1 525-82-6 35244-11-2  
70460-18-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(flavonoid PD 098063 **blocks** agonist-induced VCAM-1 protein and gene expression in human aortic endothelial cells by NF- $\kappa$ B-independent mechanism)

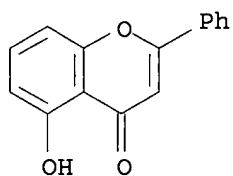
RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



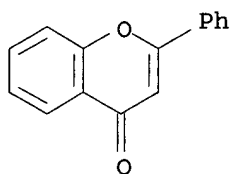
RN 491-78-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



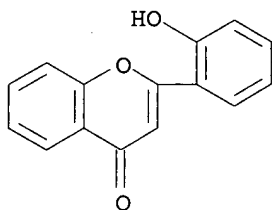
RN 525-82-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



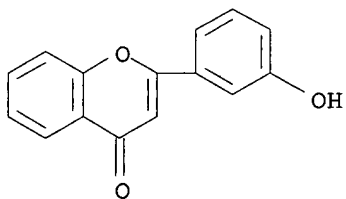
RN 35244-11-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(2-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 70460-18-3 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 36 OF 36 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:530188 CAPLUS

DOCUMENT NUMBER: 125:193182

TITLE: **Inhibition** by antioxidants of nitric oxide synthase expression in murine macrophages: role of **nuclear factor κ**

**B** and interferon regulatory factor 1

AUTHOR(S): Hecker, Markus; Preiss, Christiane; Klemm, Peter; Busse, Rudi

CORPORATE SOURCE: Centre Physiology, Johann Wolfgang Goethe University  
Clinic, Frankfurt/M., Germany

SOURCE: British Journal of Pharmacology (1996), 118(8),  
2178-2184  
CODEN: BJPCBM; ISSN: 0007-1188

PUBLISHER: Stockton

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 05 Sep 1996

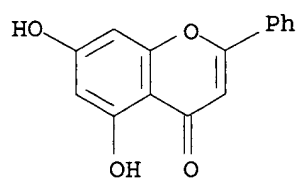
AB In view of the potential deleterious effects of high amts. of nitric oxide (NO) produced by the inducible isoform of NO synthase (iNOS) in inflammation, the prevention of the expression of this enzyme represents an important therapeutic goal. In cytokine-stimulated cells activation of nuclear factor  $\kappa$ B (NF- $\kappa$ B) is crucial for the increase in iNOS gene expression. Since NF- $\kappa$ B activation appears to involve a redox-sensitive step, the authors investigated whether 3 structurally unrelated antioxidants, 5,7-dihydroxyflavone (chrysin), 3,4-dichloroisocoumarin (DCI), and N-acetyl 5-hydroxytryptamine (N-acetylserotonin, NAS), affect iNOS expression in cultured RAW 264.7 monocyte/macrophages stimulated with bacterial lipopolysaccharide (LPS, 140 ng ml<sup>-1</sup>) and interferon- $\gamma$  (IFN $\gamma$ , 5 u ml<sup>-1</sup>). During a 6 h incubation period neither LPS nor IFN $\gamma$  alone exerted an effect but when combined, caused a prominent increase in nitrite formation, iNOS mRNA and protein abundance. Coincubation with chrysin (50  $\mu$ M), DCI (50  $\mu$ M), or NAS (1 mM) markedly attenuated this increase in iNOS gene expression. DCI, but not chrysin or NAS, prevented the activation of NF- $\kappa$ B in cells exposed to LPS plus IFN $\gamma$  for 30 min. In contrast, all 3 antioxidants blunted the DNA-binding activity of interferon regulatory factor 1 (IRF-1), which mediates the synergistic effect of IFN $\gamma$  on iNOS gene expression in cells treated for 2 h with LPS plus IFN $\gamma$ . DCI thus appears to inhibit iNOS gene expression at the transcriptional level by preventing the activation of both NF- $\kappa$ B and IRF-1. The inhibitory effect of DCI on NF- $\kappa$ B activation; however, does not seem to be related to its antioxidative properties, since DCI, unlike chrysin or NAS, is a potent serine protease inhibitor which stabilizes the inactive NF- $\kappa$ B complex by protecting the inhibitory I $\kappa$ B- $\alpha$  subunit from proteolytic degradation. The virtually identical inhibitory effect of chrysin, DCI, and NAS on the activation of IRF-1 points to a redox-sensitive step in the activation of this transcription factor, which in contrast to NF- $\kappa$ B requires de novo protein synthesis. Since iNOS gene expression in human cells and tissues usually requires the combination of several cytokines, antioxidants such as chrysin and NAS which do not interfere with the activation of NF- $\kappa$ B may be of therapeutic value for selectively inhibiting the enhanced expression of this enzyme in inflammation.

IT 480-40-0, Chrysin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(NF- $\kappa$  B and interferon regulatory factor 1 role in inhibition by antioxidants of nitric oxide synthase gene expression in macrophages stimulated with lipopolysaccharide and interferon- $\gamma$ )

RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



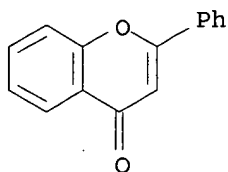
=> d que nos l33; s l33 not l30

L8 STR  
 L10 15296 SEA FILE=REGISTRY SSS FUL L8  
 L17 STR  
 L20 STR  
 L22 1370 SEA FILE=REGISTRY SUB=L10 SSS FUL (L17 AND L20)  
 L26 1643 SEA FILE=CAPLUS ABB=ON L22 (L) (THU OR PAC OR PKT OR DMA OR BAC)/RL  
 L32 103 SEA FILE=CAPLUS ABB=ON L22 AND REVIEW/DT  
 L33 31 SEA FILE=CAPLUS ABB=ON L26 AND L32

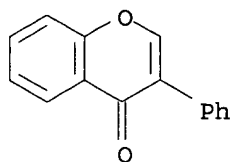
L34 31 L33 NOT L30 *previously printed*  
 => d ibib ed abs hitstr l34 1-31; fil hom

*compounds are well known. These are review articles discussing compounds for any therapeutic use*

L34 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:197774 CAPLUS  
 DOCUMENT NUMBER: 142:403184  
 TITLE: The research progress of flavone and isoflavone on inhibition oncogenic cell proliferation  
 AUTHOR(S): Liu, Shu; Han, Jing; Wang, Luya  
 CORPORATE SOURCE: Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, 100005, Peop. Rep. China  
 SOURCE: Zhongguo Yaoxue Zazhi (Beijing, China) (2004), 39(1), 4-7  
 CODEN: ZYZAEU; ISSN: 1001-2494  
 PUBLISHER: Zhongguo Yaoxue Zazhishe  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Chinese  
 ED Entered STN: 07 Mar 2005  
 AB A review on the research progress of effects of flavone and isoflavone on inhibiting oncogenic cell proliferation, including inhibiting activity of tyrosine kinase, topoisomerase, cyclin depend kinase (CDK), and selective estrogen receptor mediator (SERM) function.  
 IT 525-82-6, Flavone 574-12-9, Isoflavone  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (the research progress of flavone and isoflavone on inhibition oncogenic cell proliferation)  
 RN 525-82-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)

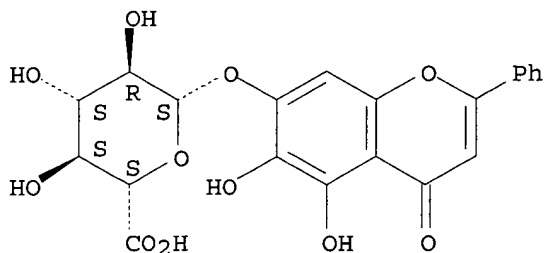


RN 574-12-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:790845 CAPLUS  
 DOCUMENT NUMBER: 142:232111  
 TITLE: Current situation in pharmacological study on baicalin  
 AUTHOR(S): Zhang, Xiping; Tian, Hua; Cheng, Qihui  
 CORPORATE SOURCE: Department of General Surgery, the First People's  
 Hospital of Hangzhou, Hangzhou, 310006, Peop. Rep.  
 China  
 SOURCE: Zhongguo Yaolixue Tongbao (2003), 19(11), 1212-1215  
 CODEN: ZYTOE8; ISSN: 1001-1978  
 PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiuso  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Chinese  
 ED Entered STN: 29 Sep 2004  
 AB A review with 32 refs. on current situation in pharmacol. study on  
 baicalin with subdivision headings: (1) Oxygen free radical-scavenging and  
 antioxidn. effects; (2) regulatory effect on immune function; (3)  
 protective effect on ischemia- reperfusion injury; (4) effect on  
 apoptosis; (5) effects on arachidonic acid system; (6) inhibitory effect  
 on microbe growth; clin. application; (8) other effects is presented.  
 IT **21967-41-9**, Baicalin  
 RL: **PAC (Pharmacological activity); THU (Therapeutic  
 use); BIOL (Biological study); USES (Uses)**  
 (pharmacol. study on baicalin)  
 RN 21967-41-9 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-  
 benzopyran-7-yl (9CI) (CA INDEX NAME)

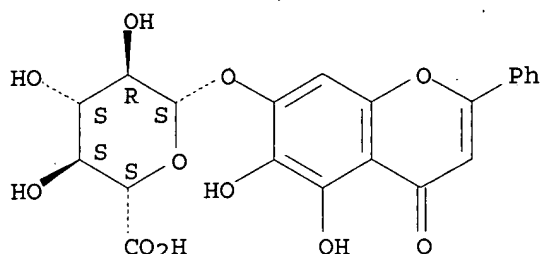
Absolute stereochemistry.



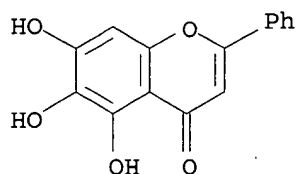
L34 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:714918 CAPLUS  
 DOCUMENT NUMBER: 142:189787  
 TITLE: Research on anti-endotoxin effects of Chinese medicine  
 chemical components  
 AUTHOR(S): Liu, Jin  
 CORPORATE SOURCE: Fujian Provincial Medicines Co., Fuzhou, 350001, Peop.  
 Rep. China

SOURCE: Yiyao Daobao (2004), 23(7), 486-488  
 CODEN: YDIAAL; ISSN: 1004-0781  
 PUBLISHER: Yiyao Daobao Zazhishe  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Chinese  
 ED Entered STN: 02 Sep 2004  
 AB A review. Research on anti-endotoxin effects of Chinese medicine chemical components is reviewed including gypenosides, ginkgolide B and A, ginsenoside, baicalin, anisodamine, and danshensu etc. as examples.  
 IT 21967-41-9, Baicalin  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (research on anti-endotoxin effects of Chinese medicine chemical components)  
 RN 21967-41-9 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

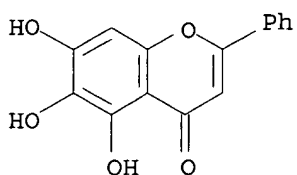
Absolute stereochemistry.



L34 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:714893 CAPLUS  
 DOCUMENT NUMBER: 142:189779  
 TITLE: Research Advances in antiviral Chinese medicine  
 AUTHOR(S): Liu, Fu-qiang; Wang, Wei-dong; Tang, Zhen  
 CORPORATE SOURCE: Dep. of Pharmacy, The 208th Hospital of PLA, Changchun, Jilin, 130062, Peop. Rep. China  
 SOURCE: Yiyao Daobao (2004), 23(8), 536-538  
 CODEN: YDIAAL; ISSN: 1004-0781  
 PUBLISHER: Yiyao Daobao Zazhishe  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Chinese  
 ED Entered STN: 02 Sep 2004  
 AB A review. Research Advances in antiviral Chinese medicine is reviewed including the antiviral components isolated from Chinese medicines such as baicalein and kurarinone etc., antiviral Chinese medicine and its extract such as Scutellaria baicalensis and Forsythia suspensa etc., and antiviral Chinese patent medicine and its extract with examples.  
 IT 491-67-8, Baicalein  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (research Advances in antiviral Chinese medicine)  
 RN 491-67-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

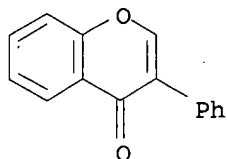


L34 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:678878 CAPLUS  
 DOCUMENT NUMBER: 141:150387  
 TITLE: Recent developments of apoptosis inducer  
 AUTHOR(S): Sha, Lei; Zhao, Bao-Xiang; Tan, Wei; Miao, Jun-Ying  
 CORPORATE SOURCE: Sch. Chem. Chem. Eng., Shandong Univ., Jinan, 250100, Peop. Rep. China  
 SOURCE: Youji Huaxue (2004), 24(8), 864-871  
 CODEN: YCHHDX; ISSN: 0253-2786  
 PUBLISHER: Kexue Chubanshe  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Chinese  
 ED Entered STN: 20 Aug 2004  
 AB A review. The apoptosis inducers as anticancer reagents have attracted considerable attention, and now some of them have been used in clinic. They are the promising drugs toward, cancer treatment. This paper reviews the recent development of apoptosis inducer with an emphasis on their structures and their structure-activity relationship.  
 IT **491-67-8, Baicalein**  
 RL: **PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)**  
 (recent developments of apoptosis inducer)  
 RN 491-67-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

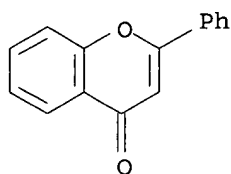


L34 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:537222 CAPLUS  
 DOCUMENT NUMBER: 142:175885  
 TITLE: Periodontal diseases and systemic bone density-supplementation of calcium and soybean isoflavone  
 AUTHOR(S): Takemura, Akane  
 CORPORATE SOURCE: Product Development Dep., Sunstar Inc., Takatsuki, Osaka, 569-1195, Japan  
 SOURCE: Saibo (2004), 36(6), 241-243  
 CODEN: SAIBC7; ISSN: 1346-7557  
 PUBLISHER: Nyu Saiensusha  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Japanese

ED Entered STN: 06 Jul 2004  
AB A review discussing the effect of calcium and soybean isoflavone supplementation on periodontal disease based on clin. study with postmenopausal females is provided.  
IT 574-12-9, Isoflavone  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(effect of calcium and soybean isoflavone supplementation on periodontal diseases and systemic bone d.)  
RN 574-12-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:276947 CAPLUS  
DOCUMENT NUMBER: 141:98776  
TITLE: Progress in the therapy of liver fibrosis targeting to hepatic stellate cells  
AUTHOR(S): Zhang, Xufu; Lu, Zhiping; Liu, Xiaoyan  
CORPORATE SOURCE: Traditional Chinese Medicine Department, The First Military Medical University, Guangzhou, 510515, Peop. Rep. China  
SOURCE: Zhongguo Yaolixue Tongbao (2003), 19(6), 622-626  
CODEN: ZYTOE8; ISSN: 1001-1978  
PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiusuo  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: Chinese  
ED Entered STN: 05 Apr 2004  
AB A review with 38 refs. on progress in the therapy of liver fibrosis targeting to hepatic stellate cells with subdivision headings: (1) inhibiting the activation and proliferation of hepatic stellate cells; (2) regulating the synthesis and degradation of collagen; (3) hepatic stellate cells-targeting therapy of liver fibrosis; (4) conclusion and expectation.  
IT 38640-70-9, Penta-hydroxyflavone  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(progress in therapy of liver fibrosis targeting to hepatic stellate cells)  
RN 38640-70-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2-phenyl-, pentahydroxy deriv. (9CI) (CA INDEX NAME)



5 ( D1-OH )

L34 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:207591 CAPLUS

DOCUMENT NUMBER: 141:313057

TITLE: Isoflavone and saponin in soybeans

AUTHOR(S): Kudo, Shigemitsu; Yuki, Yumiko; Okubo, Kazuyoshi

CORPORATE SOURCE: Society of Food Science and Technology, Japan, Japan

SOURCE: Shokuhin Kogyo ni Okeru Kagaku Gijutsu no Shinpo  
(2003), 10, 41-65

CODEN: SKOKBV

PUBLISHER: Korin

DOCUMENT TYPE: Journal; **General Review**

LANGUAGE: Japanese

ED Entered STN: 16 Mar 2004

AB A review discussing soybean isoflavone chemical structures, isoflavone concentration

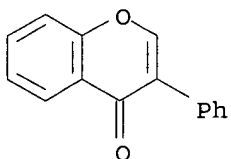
in soybeans and processed food, metabolism in the human body, and physiol. activities, saponin in soybeans, and the concentration and metabolism thereof.

IT **574-12-9D**, Isoflavone, derivs.

RL: FFD (Food or feed use); **THU (Therapeutic use)**; BIOL  
(Biological study); USES (Uses)  
(isoflavone and saponin in soybeans)

RN 574-12-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:179435 CAPLUS

DOCUMENT NUMBER: 141:270740

TITLE: Herbal Modulation of P-Glycoprotein

AUTHOR(S): Zhou, Shufeng; Lim, Lee Yong; Chowbay, Balram

CORPORATE SOURCE: Faculty of Science, Department of Pharmacy, National  
University of Singapore, Singapore

SOURCE: Drug Metabolism Reviews (2004), 36(1), 57-104

CODEN: DMTRAR; ISSN: 0360-2532

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal; **General Review**

LANGUAGE: English

ED Entered STN: 05 Mar 2004

AB A review. P-glycoprotein (Pgp) is a 170 kDa phosphorylated glycoprotein encoded by human MDR1 gene. It is responsible for the systemic disposition of numerous structurally and pharmacol. unrelated lipophilic and amphipathic drugs, carcinogens, toxins, and other xenobiotics in many organs, such as the intestine, liver, kidney, and brain. Like cytochrome P450s (CYP3A4), Pgp is vulnerable to inhibition, activation, or induction by herbal constituents. This was demonstrated by using an ATPase assay, purified Pgp protein or intact Pgp-expressing cells, and proper probe substrates and inhibitors. Curcumin, ginsenosides, piperine, some catechins from green tea, and silymarin from milk thistle were found to be inhibitors of Pgp, while some catechins from green tea increased Pgp-mediated drug transport by heterotropic allosteric mechanism, and St. John's wort induced the intestinal expression of Pgp in vitro and in vivo. Some components (e.g., bergamottin and quercetin) from grapefruit juice were reported to modulate Pgp activity. Many of these herbal constituents, in particular flavonoids, were reported to modulate Pgp by directly interacting with the vicinal ATP-binding site, the steroid-binding site, or the substrate-binding site. Some herbal constituents (e.g., hyperforin and kava) were shown to activate pregnane X receptor, an orphan nuclear receptor acting as a key regulator of MDR1 and many other genes. The inhibition of Pgp by herbal constituents may provide a novel approach for reversing multidrug resistance in tumor cells, whereas the stimulation of Pgp expression or activity has implication for chemoprotective enhancement by herbal medicines. Certain natural flavonols (e.g., kaempferol, quercetin, and galangin) are potent stimulators of the Pgp-mediated efflux of 7,12-dimethylbenz(a)-anthracene (a carcinogen). The modulation of Pgp activity and expression by these herb constituents may result in altered absorption and bioavailability of drugs that are Pgp substrates. This is exemplified by increased oral bioavailability of phenytoin and rifampin by piperine and decreased bioavailability of indinavir, tacrolimus, cyclosporine, digoxin, and fexofenadine by coadministered St. John's wort. However, many of these drugs are also substrates of CYP3A4. Thus, the modulation of intestinal Pgp and CYP3A4 represents an important mechanism for many clin. important herb-drug interactions. Further studies are needed to explore the relative role of Pgp and CYP3A4 modulation by herbs and the mechanism for the interplay of these two important proteins in herb-drug interactions.

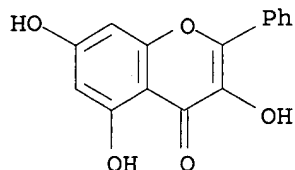
IT 548-83-4, Galangin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(natural flavonol galangin is potent stimulator of Pgp-mediated efflux of carcinogen 7,12-dimethylbenz(a)-anthracene)

RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

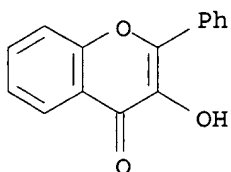


IT 577-85-5, Flavonol

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

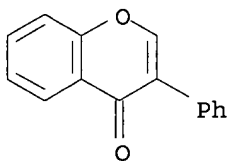
(natural flavonols kaempferol, quercetin and galangin are potent stimulators of Pgp-mediated efflux of carcinogen 7,12-dimethylbenz(a)-

anthracene)  
 RN 577-85-5 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



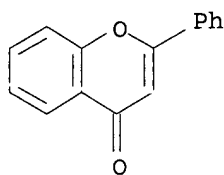
REFERENCE COUNT: 336 THERE ARE 336 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L34 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:81079 CAPLUS  
 DOCUMENT NUMBER: 141:218071  
 TITLE: Phytoestrogens. The role of isoflavones  
 AUTHOR(S): Dragomirescu, Anca; Antal, Diana; Dehelean, Cristina  
 CORPORATE SOURCE: Fac. de Farm. Timisoara, UMFT, Timisoara, 1900, Rom.  
 SOURCE: Farmacia (Bucharest, Romania) (2003), 51(6), 15-24  
 CODEN: FRMBAZ; ISSN: 0014-8237  
 PUBLISHER: Societatea de Stiinte Farmaceutice din Romania  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Romanian  
 ED Entered STN: 02 Feb 2004  
 AB A review with refs. Phytoestrogens are substances of vegetable origin: isoflavones, lignans, sterols synthesized by plants acting as fungicides or hormone regulators and which action is estrogen-like action.  
 IT 574-12-9, Isoflavone  
 RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (phytoestrogens)  
 RN 574-12-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:62124 CAPLUS  
 DOCUMENT NUMBER: 141:154  
 TITLE: Relation between structure and antioxidant activity of flavonoid  
 AUTHOR(S): Chen, Qi; Wang, Bo-chu; Tang, Chun-hong; Duan, Chuan-ren  
 CORPORATE SOURCE: Key Laboratory for Biomechanics & Tissue Engineering under State Ministry of Education, College of Bioengineering, Chongqing University, Chongqing,

SOURCE: 400044, Peop. Rep. China  
Chongqing Daxue Xuebao, Ziran Kexueban (2003), 26(11),  
48-51, 55  
CODEN: CDXZF2; ISSN: 1000-582X  
PUBLISHER: Chongqing Daxue Xuebao Bianjibu  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: Chinese  
ED Entered STN: 26 Jan 2004  
AB A review. A great many plants contain the monomer of flavonoids. These components have more than one hydroxy radical ( $R \cdot OH$ ), and provided with antioxidant effect of hydrogen radical ( $H \cdot$ ), can scavenge the superoxide anions ( $O_2 \cdot^-$ ), hydroxy free radical ( $OH \cdot$ ) and other free radical activity. The relation between structure and antioxygenic activity of flavonoid is consanguineous. The structure-antioxidn. relationship of typical flavonoid antioxidants is described from three aspects. The amount of phenol hydroxyl, the locations of phenol hydroxyl and the different, substitute of phenol hydroxyl, it has been anticipated that some new flavonoid drugs with high efficacy and strong specificity will be discovered and developed and applied.  
IT 525-82-6, Flavone  
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);  
USES (Uses)  
(relation between structure and antioxidant activity of flavonoid)  
RN 525-82-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



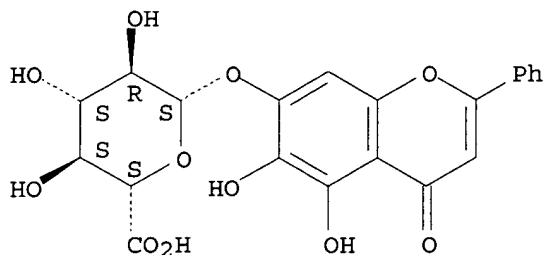
L34 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN-  
ACCESSION NUMBER: 2003:1011914 CAPLUS  
DOCUMENT NUMBER: 141:93  
TITLE: Advances in modulation of cytochrome P-450 by Chinese herbal medicine  
AUTHOR(S): Wang, Yuguang; Gao, Yue  
CORPORATE SOURCE: Institute of Radiation Medicine, Academy of Military Medical Sciences, Beijing, 100850, Peop. Rep. China  
SOURCE: Zhongcaoyao (2003), 34(5), 477-478, s1  
CODEN: CTYAD8; ISSN: 0253-2670  
PUBLISHER: Zhongcaoyao Zazhi Bianjibu  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: Chinese  
ED Entered STN: 30 Dec 2003  
AB A review with 19 refs. on advances in modulation of cytochrome P 450 by Chinese herbal medicine with subdivision headings: (1) study on the regulatory effects of various kinds of compds. in Chinese medicine on the activity of cytochrome P 450; (2) study on the regulatory effects of Chinese medicine on the activity of cytochrome P 450; (3) study on the regulatory effects of Chinese patent medicine on the activity of cytochrome P 450; (4) methods for studying the regulatory effects of Chinese medicine; and (5) conclusion.  
IT 21967-41-9, Baicalin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(advances in modulation of cytochrome P 450 by Chinese herbal medicine)

RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:932226 CAPLUS

DOCUMENT NUMBER: 140:298665

TITLE: Anti-dipsotropic isoflavones: the potential therapeutic agents for alcohol dependence

AUTHOR(S): Keung, Wing Ming

CORPORATE SOURCE: Department of Psychiatry, Massachusetts Mental Health Center, and Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Cambridge, MA, 02139, USA

SOURCE: Medicinal Research Reviews (2003), 23(6), 669-696

CODEN: MRREDD; ISSN: 0198-6325

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

ED Entered STN: 30 Nov 2003

AB A review on the anti-dipsotropic isoflavones: the potential therapeutic agents for alc. dependence. Daidzin is the active principle of *Radix puerariae* (RP), an herbal remedy that has been used apparently safely and effectively for the treatment of "alc. addiction" in China for more than a millennium. It has been shown to reduce alc. consumption in all animal models tested to date. A link between daidzin's capacity to reduce alc. consumption and its ability to increase liver mitochondrial monoamine oxidase (MAO): aldehyde dehydrogenase (ALDH-2) activity ratio has been established. Daidzin analogs that potently inhibit ALDH-2 but not MAO are the most antidipsotropic, whereas those that also inhibit MAO are not. On the basis of these findings, it was proposed that the liver mitochondrial MAO-ALDH-2 pathway is the primary site of action of daidzin and that a biogenic aldehyde derived from the action of MAO mediates its anti-dipsotropic action. Therefore, to design and synthesize more potent anti-dipsotropic analogs, structural features that would enhance ALDH-2 inhibition and/or decrease MAO inhibition needed to be evaluated. Structure-activity-relationship (SAR) studies have revealed that a sufficient set of criteria for a potent anti-dipsotropic analog is an isoflavone with a free 4'-OH function and a straight-chain alkyl at the 7 position that has a terminal polar function such as -OH, -COOH, or -NH<sub>2</sub>. The preferable chain lengths for the 7-O-o-carboxy, 7-O-o-hydroxy, and 7-O-o-amino substituents are  $5 \leq n \leq 10$ ,  $2 \leq n \leq 6$ , and  $n \geq 4$ , resp. Analogs that meet these criteria have

increased potency for ALDH-2 inhibition and/or decreased potency for MAO inhibition and are, therefore, likely to be potent anti-dipsotropic agents.

IT 574-12-9, Isoflavone

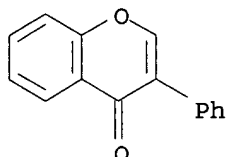
RL: BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(anti-dipsotropic isoflavones and potential therapeutic agents for alc. dependence)

RN 574-12-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:724209 CAPLUS

DOCUMENT NUMBER: 140:300380

TITLE: Advances in studies on chemical constituents and physiological activity of Goniiothalamus (Bl.) Hook. f. et Thoms.

AUTHOR(S): Wang, Qizhi; He, Mingfang; Liang, Jingyu

CORPORATE SOURCE: Department of Phytochemistry, China Pharmaceutical University, Nanjing, 210009, Peop. Rep. China

SOURCE: Zhongcaoyao (2003), 31(3), 277-280

CODEN: CTYAD8; ISSN: 0253-2670

PUBLISHER: Zhongcaoyao Zazhi Bianjibu

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

ED Entered STN: 16 Sep 2003

AB A review of advances in studies on the chemical constituents and physiological activity of Goniiothalamus.

IT 480-39-7, Pinocembrin

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);

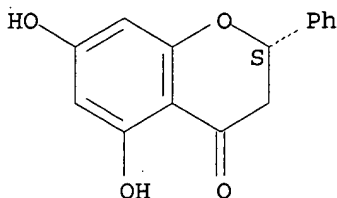
USES (Uses)

(chemical constituents and antitumor activity of Goniiothalamus)

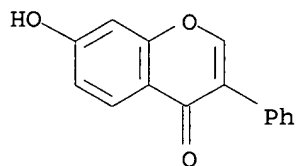
RN 480-39-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5,7-dihydroxy-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:674346 CAPLUS  
DOCUMENT NUMBER: 140:305682  
TITLE: Progress on synthesis of 7-hydroxyisoflavone for  
antiosteoporosis pharmaceuticals  
AUTHOR(S): Fu, Chun; Shen, Zhangping; Xiao, Guomin  
CORPORATE SOURCE: Nanjing Chemical Plant, China Petrochemical Corp.,  
Nanjing, Peop. Rep. China  
SOURCE: Jingxi Yu Zhuanyong Huaxuepin (2003), 11(15), 12-16  
CODEN: JYZHA7; ISSN: 1008-1100  
PUBLISHER: Jingxi Yu Zhuanyong Huaxuepin Bianjibu  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: Chinese  
ED Entered STN: 29 Aug 2003  
AB A review covering synthetic methods and development progress of  
7-hydroxyisoflavone, a key intermediate for the manufacture of newly developed  
antiosteoporosis drugs. The advantages and disadvantages of the synthetic  
methods are discussed and it is pointed out that cyclocondensation of  
tri-Et orthoformate with 2,4-dihydroxyphenyl benzyl ketone prepared from  
resorcinol and PhCH<sub>2</sub>CO<sub>2</sub>H is an appropriate technol. for com. production of  
7-hydroxyisoflavone.  
IT **13057-72-2P**, 7-Hydroxyisoflavone  
RL: IMF (Industrial manufacture); **THU (Therapeutic use)**; BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(progress on synthesis of hydroxyisoflavone for antiosteoporosis  
pharmaceuticals)  
RN 13057-72-2 CAPLUS  
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2002:519783 CAPLUS  
DOCUMENT NUMBER: 138:82738  
TITLE: GABAA-receptor ligands of flavonoid structure  
AUTHOR(S): Marder, Mariel; Paladini, Alejandro C.  
CORPORATE SOURCE: Instituto de Quimica y Fisicoquimica Biologicas,  
Facultad de Farmacia y Bioquimica, Buenos Aires, 1113,  
Argent.  
SOURCE: Current Topics in Medicinal Chemistry (Hilversum,  
Netherlands) (2002), 2(8), 853-867  
CODEN: CTMCCL; ISSN: 1568-0266  
PUBLISHER: Bentham Science Publishers Ltd.  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: English  
ED Entered STN: 12 Jul 2002  
AB A review describes the new research developments that have established the  
CNS-activity of some natural flavonoids. The properties of flavone,  
chrysin, apigenin and cirsiol are described and a survey of the  
occurrence of ligands for the benzodiazepine binding site in the flavonoid  
field is attempted. Natural compds., structurally related to flavonoids

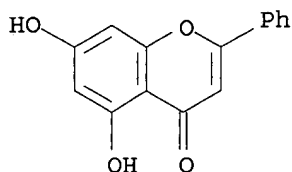
and with similar CNS-activities, are also included. A medicinal chemical approach to improve the biochem. and pharmacol. properties of the flavone nucleus is described alongside with the enumeration of the principal achievements obtained to date. Quant. structure-activity relationships studies leading to the formulation of pharmacophore models presumably describing the characteristics of the flavone-binding site in the GABAA-receptor are summarized.

IT 480-40-0, Chrysin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(GABAA-receptor ligands of flavonoid structure)

RN 480-40-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:175181 CAPLUS

DOCUMENT NUMBER: 136:334614

TITLE: Effects of Saiboku-to (Chai-Pu-Tang) components, which are absorbed into the body following the administration, on the release of leukotrienes

AUTHOR(S): Honma, Masato; Oka, Kitaro; Niitsuma, Tomoyuki; Hayashi, Toru

CORPORATE SOURCE: Department of Pharmaceutical Science, Institute of Clinical Medicine, University of Tsukuba, Ibaraki, Japan

SOURCE: Kanpo to Men'eki, Arerugi (2001), 15, 38-46  
CODEN: KMARED; ISSN: 0914-6407

PUBLISHER: Fama Intanashonaru

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

ED Entered STN: 12 Mar 2002

AB A review. To investigate the anti-allergic activities of the components, which are absorbed into the body when Saiboku-to (Chai-Pu-Tang) is administered, we studied the inhibitory effects on the release of leukotrienes (LTs) from human polymorphonuclear leukocytes (PMLs). The inhibitory effects for each compound were evaluated by a concentration (IC50) that

suppresses 50% the release of LTB4 and LTC4 from PMLs stimulated by calcium ionophores. The inhibition activities for davidigenin, medicarpin, and dihydroxydihydromagnolol were equal to that for the pos. control azelastine hydrochloride. Baicalein and magnolol demonstrated stronger activity compared with azelastine hydrochloride. Liquiritigenin did not inhibit the LT-release but davidigenin, a bacterial metabolite of liquiritigenin in the intestine, did. This observation lead to the assumption that liquiritigenin plays a part in inhibiting release of LTs through metabolic conversion to active davidigenin in the intestinal bacterial flora. Active compds. took from 1 to 3, from 6 to 9, or 12 h to reach maximum concentration in the blood after single dose of Saiboku-to. The

comps. related to inhibition of LT release changed time-dependently after administration of Saiboku-to. LT-release inhibition by baicalein and magnolol was stronger in the PMLs of bronchial-asthmatics than in those of healthy subjects.

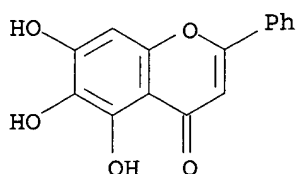
IT 491-67-8, Baicalein

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effects of Saiboku-to (Chai-Pu-Tang) components, which are absorbed into the body following the administration, on the release of leukotrienes)

RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:175180 CAPLUS

DOCUMENT NUMBER: 136:334613

TITLE: Inhibition effects of oriental medicine on production of macrophage-derived chemokines (MDC)

AUTHOR(S): Hirai, Koichi; Nakajima, Toshiharu; Cyong, Jong-Chol

CORPORATE SOURCE: Department of Bioregulatory Function, University of Tokyo Graduate School of Medicine, Tokyo, Japan

SOURCE: Kanpo to Men'eki, Arerugi (2001), 15, 28-37

CODEN: KMARED; ISSN: 0914-6407

PUBLISHER: Fama Intanashonaru

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

ED Entered STN: 12 Mar 2002

AB A review. The Th2-specific chemokine MDC is thought to be a target mol. for the treatment of bronchial asthma, which is Th2 dominant. Administration of Saiboku-to (Chai-Po-Tang) and Oren-gedoku-to (Huang-Lian-Jie-Du-Tang [500 µg/mL]) inhibited dominant production of MDC from human peripheral-blood mononuclear cell under IL-4 stimulation. Administration of 500 µg/mL of Oren (Huang-Qin) a component of Saiboku-to alone significantly inhibited MDC production. Among the components of Ogon, baicalein and wogonin significantly inhibited MDC production. Wogonin too was shown to have an inhibiting effect. PCR investigations showed that addition of 5 µg/mL of baicalein and 50 µg/mL of wogonin inhibited MDC mRNA expression. In addition, Oren and Obaku, both components of Oren-gedoku-to, inhibited MDC production. Their principal component berberine also suppressed MDC generation.

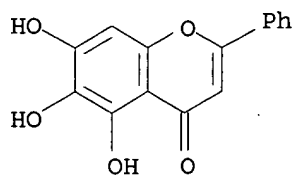
IT 491-67-8, Baicalein 632-85-9, Wogonin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition effects of oriental medicine on production of macrophage-derived chemokines)

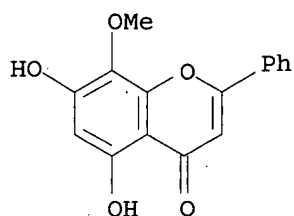
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 632-85-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-8-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:96964 CAPLUS

DOCUMENT NUMBER: 137:194759

TITLE: Review in pharmacological study of baicalein

AUTHOR(S): Zhang, Xiping; Li, Zongfang; Liu, Xiaogong

CORPORATE SOURCE: Second Hospital, Xi'an Jiaotong University, Xi'an, 710004, Peop. Rep. China

SOURCE: Zhongguo Yaolixue Tongbao (2001), 17(6), 711-713

CODEN: ZYTOE8; ISSN: 1001-1978

PUBLISHER: Anhui Yike Daxue Linchuan Yaoli Yanjiuso

DOCUMENT TYPE: Journal; **General Review**

LANGUAGE: Chinese

ED Entered STN: 06 Feb 2002

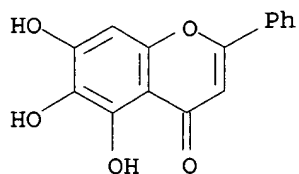
AB A review with 17 refs. on pharmacol. of baicalein with subdivision headings: (1) antibacterial and antiviral effects; (2) anti-inflammatory effect; (3) protective effect on liver and diuretic effect; (4) antioxidant and free radical scavenging effects; (5) anticoagulative and antithrombotic effects; (6) inhibitory effect of pancreatic enzyme activity; (7) effects on biol. membranes; (8) antitumor effects; (9) regulatory effects on smooth muscle; (10) antihypertensive effect; inhibitory effect on adhesion mol. expression and (12) summary.

IT 491-67-8, Baicalein

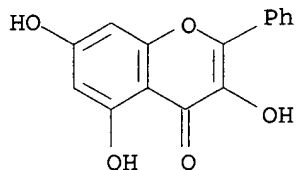
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmacol. of baicalein)

RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:333455 CAPLUS  
 DOCUMENT NUMBER: 135:131613  
 TITLE: Anti-genotoxicity of galangin as a cancer chemopreventive agent candidate  
 AUTHOR(S): Heo, M. Y.; Sohn, S. J.; Au, W. W.  
 CORPORATE SOURCE: College of Pharmacy, Kangwon National University, Chuncheon, 200, S. Korea  
 SOURCE: Mutation Research (2001), 488(2), 135-150  
 CODEN: MUREAV; ISSN: 0027-5107  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: English  
 ED Entered STN: 10 May 2001  
 AB A review with 132 refs. Flavonoids are polyphenolic compds. that are present in plants. They have been shown to possess a variety of biol. activities at non-toxic concns. in organisms. Galangin, a member of the flavonol class of flavonoid, is present in high concns. in medicinal plants (e.g. Alpinia officinarum) and propolis, a natural beehive product. Results from in vitro and in vivo studies indicate that galangin with anti-oxidative and free radical scavenging activities is capable of modulating enzyme activities and suppressing the genotoxicity of chems. These activities will be discussed in this review. Based on our review, galangin may be a promising candidate for cancer chemoprevention.  
 IT **548-83-4**, Galangin  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
 (anti-genotoxicity of galangin as a cancer chemopreventive agent candidate)  
 RN 548-83-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)

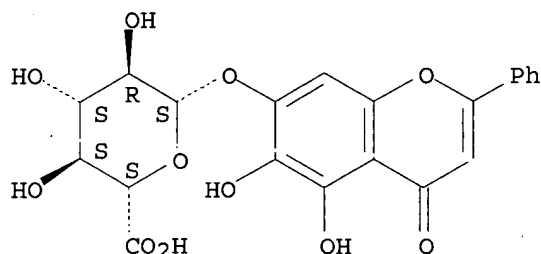


REFERENCE COUNT: 132 THERE ARE 132 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:6771 CAPLUS  
 DOCUMENT NUMBER: 135:101688  
 TITLE: Pharmacological effects of baicalin

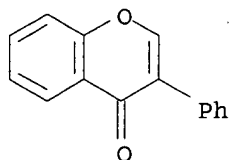
AUTHOR(S): Cui, Lan; Yuan, Jing; Wang, Pingquan  
 CORPORATE SOURCE: Department of Clinical Pharmacy and Pharmacology,  
 Renji Hospital, Shanghai, Shanghai, 200001, Peop. Rep.  
 China  
 SOURCE: Zhongguo Yiyuan Yaoxue Zazhi (2000), 20(11), 685-686  
 CODEN: ZYYAEP; ISSN: 1001-5213  
 PUBLISHER: Zhongguo Yiyuan Yaoxue Zazhi Bianjibu  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Chinese  
 ED Entered STN: 04 Jan 2001  
 AB A review, with 18 refs., on the pharmacol. of baicalin: effect on Ca<sup>2+</sup>;  
 scavenging of free radicals; inhibition of aldose reductase and use in  
 treating chronic complications of diabetes; effect on psoriasis;  
 anti-HIV-1 activity; antitumor effects; effects on cataracts; sunscreensing  
 activity.  
 IT 21967-41-9, Baicalin  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU  
 (Biological study, unclassified); **THU (Therapeutic use)**; BIOL  
 (Biological study); USES (Uses)  
 (pharmacol. of baicalin)  
 RN 21967-41-9 CAPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-  
 benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2000:844208 CAPLUS  
 DOCUMENT NUMBER: 134:4292  
 TITLE: Application of isoflavone for beauty  
 AUTHOR(S): Kojima, Hiroyuki; Kawai, Norihisa  
 CORPORATE SOURCE: Res. Dev. Dep., Ichimaru Pharcos Co. Ltd., Gifu,  
 501-0475, Japan  
 SOURCE: Fragrance Journal (2000), 28(11), 111-115  
 CODEN: FUJAD7; ISSN: 0288-9803  
 PUBLISHER: Fureguransu Janaru Sha  
 DOCUMENT TYPE: Journal; **General Review**  
 LANGUAGE: Japanese  
 ED Entered STN: 05 Dec 2000  
 AB A review with 15 refs. on biosynthesis and structure of isoflavonoids  
 which are contained in plant, especially in soybean. Physiol. activities of  
 isoflavonoids such as female sex hormone-like activity, antimicrobial  
 activity, etc., are also discussed.  
 IT 574-12-9, Isoflavone  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU  
 (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological  
 study); USES (Uses)  
 (application of isoflavone for beauty)

RN 574-12-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:436176 CAPLUS

DOCUMENT NUMBER: 129:67146

TITLE: Flavonols, flavones, and anthocyanins as native antioxidants of food and their possible role in the prevention of chronic diseases

AUTHOR(S): Boehm, H.; Boeing, H.; Hempel, J.; Raab, B.; Kroke, A.

CORPORATE SOURCE: Deutsches Institut Ernaehrungsforschung, Bergholz-Rehbruecke, D-14558, Germany

SOURCE: Zeitschrift fuer Ernaehrungswissenschaft (1998), 37(2), 147-163

CODEN: ZERNAL; ISSN: 0044-264X

PUBLISHER: Dr. Dietrich Steinkopff Verlag GmbH & Co. KG

DOCUMENT TYPE: Journal; **General Review**

LANGUAGE: German

ED Entered STN: 15 Jul 1998

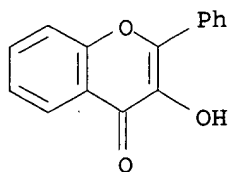
AB A review with many refs. on the current knowledge on the occurrence, intake, bioavailability, and antioxidative properties of flavonols, flavones, and anthocyanins as well as the assocns. between flavonol intake and disease risks. Flavonoids are non-nutritive compds. of plants with a considerable antioxidative activity, mainly based on scavenging of O radicals, and possible protective effects against chronic diseases. Flavonols and anthocyanins are commonly found in European fruits and vegetables. Black tea and red wine may have a high content of these compds. The mean intake of flavonols of the German population was calculated using data from the National German Food Consumption Survey. According to this anal., the daily, per capita intake was .apprx.11.5 mg flavonols, mainly derived from fruits and vegetables, but also from black tea and red wine. An inverse association between flavonol intake and mortality from myocardial infarction was observed by epidemiol. studies. The flavonoid intake can be inversely correlated with cancer risk. Possible health related effects especially of flavonols are critically reflected, and the necessity of further research is outlined.

IT 577-85-5, Flavonol

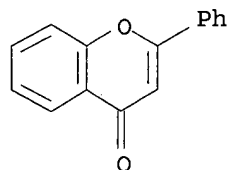
RL: **BAC (Biological activity or effector, except adverse)**; BOC (Biological occurrence); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (flavonols, flavones, and anthocyanins as native antioxidants of food and their role in prevention of chronic diseases)

RN 577-85-5 CAPLUS

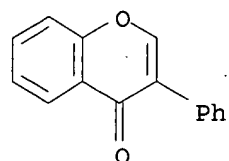
CN 4H-1-Benzopyran-4-one, 3-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



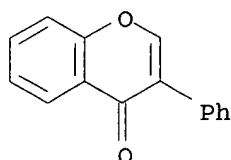
IT 525-82-6, Flavone  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological  
 study); USES (Uses)  
 (flavonols, flavones, and anthocyanins as native antioxidants of food  
 and their role in prevention of chronic diseases)  
 RN 525-82-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:377444 CAPLUS  
 DOCUMENT NUMBER: 129:135489  
 TITLE: Health effects of non-nutrient factors in soy bean  
 AUTHOR(S): Watanabe, Shaw  
 CORPORATE SOURCE: Fac. Appl. Biol., Tokyo Agric. Univ., Japan  
 SOURCE: Food Style 21 (1998), 2(6), 29-32  
 CODEN: FSTYFF  
 PUBLISHER: Shokuhin Kagaku Shinbunsha  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Japanese  
 ED Entered STN: 20 Jun 1998  
 AB A review with 13 refs. on application of nonnutritive soybean isoflavones  
 on health.  
 IT 574-12-9, Isoflavone  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); FFD  
 (Food or feed use); THU (Therapeutic use); BIOL (Biological  
 study); OCCU (Occurrence); USES (Uses)  
 (health effects of non-nutrient factors in soy bean)  
 RN 574-12-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1998:332080 CAPLUS  
DOCUMENT NUMBER: 129:94548  
TITLE: Cancer suppressing effects of soybean isoflavone derivatives of food  
AUTHOR(S): Tsuzaki, Shinichi  
CORPORATE SOURCE: Fuji Oil Co., Ltd., Japan  
SOURCE: New Food Industry (1998), 40(4), 59-64  
CODEN: NYFIAM; ISSN: 0547-0277  
PUBLISHER: Shokuhin Shizai Kenkyukai  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: Japanese  
ED Entered STN: 04 Jun 1998  
AB A review with 26 refs.  
IT **574-12-9D**, Isoflavone, derivs.  
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(cancer suppressing effects of soybean isoflavone derivs. of food)  
RN 574-12-9 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1998:20738 CAPLUS  
DOCUMENT NUMBER: 128:135952  
TITLE: Anticancer properties of flavonoids, with emphasis on citrus flavonoids  
AUTHOR(S): Carroll, Kenneth K.; Guthrie, Najla; So, Felicia V.; Chambers, Ann F.  
CORPORATE SOURCE: The University of Western Ontario, London, ON, Can.  
SOURCE: Antioxidants in Health and Disease (1998), 7(Flavonoids in Health and Disease), 437-446  
CODEN: AHDIEQ  
PUBLISHER: Marcel Dekker, Inc.  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: English  
ED Entered STN: 15 Jan 1998  
AB A review, with 19 refs. Orange juice given to rats in place of drinking water appeared to delay the development of mammary tumors induced by DMBA. The rats given orange juice grew better than controls, indicating that the inhibition of tumorigenesis was not simply an effect of general growth inhibition. Flavonoids, including those present in citrus juices, were shown to inhibit proliferation of both estrogen receptor-neg. and -pos. human breast cancer cells in culture. The most effective compds. tested were nobiletin and tangeretin from tangerines. With the exception of genistein, the flavonoids used in these expts. do not appear to be acting as antiastrogens. Their ability to inhibit protein kinase C suggests that they interfere with signal transduction pathways in these human breast cancer cells. The flavonoids were found to act synergistically with tocotrienols (a form of vitamin E) and with tamoxifen in the inhibition of

both the estrogen receptor-neg. and -pos. cancer cells. This may be because they are inhibiting proliferation of the cells by different mechanisms. Eating a mixture of foods containing these different compds. may thus help to prevent cancer and may potentiate the action of established anticancer agents such as tamoxifen.

IT 491-67-8, Baicalein 548-83-4, Galangin

RL: BAC (Biological activity or effector, except adverse); BSU

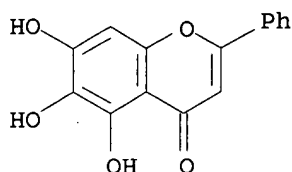
(Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(anticancer properties of flavonoids, with emphasis on citrus flavonoids)

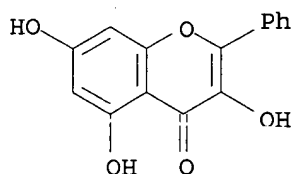
RN 491-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 548-83-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:658938 CAPLUS

DOCUMENT NUMBER: 127:314297

TITLE: Food, medicinal plants and active oxygen metabolism

AUTHOR(S): Okuda, Hiromichi

CORPORATE SOURCE: Department Biochemistry II, Ehime University School Medicine, Japan

SOURCE: Furi Rajikaru no Rinsho (1996), 10, 13-18

CODEN: FRRIFI

PUBLISHER: Nihon Igakukan

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

ED Entered STN: 17 Oct 1997

AB A review and discussion with 8 refs., mainly to the author's own research. Since ancient times, the roots of *Scutellaria baicalensis* have been used to treat allergic and inflammatory diseases in China and Japan. Baicalein isolated from this medicinal plant was found to inhibit 5- and 12-lipoxygenases. In addition, various coumarins, especially esculetin also inhibited these lipoxygenases. Recently, the author and coworkers isolated the novel compound Arg-Fru-Glc from Korean red ginseng. In the small intestine, Arg-Fru-Glc was metabolized to Arg-Fru which was then absorbed. It was clarified that the absorbed Arg-Fru caused dilatation of

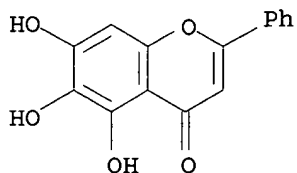
blood vessels possibly through production of NO.

IT 491-67-8, Baicalein

RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); BIOL (Biological study)  
(lipoxygenase inhibition by medicinal plant component)

RN 491-67-8' CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1994:265711 CAPLUS

DOCUMENT NUMBER: 120:265711

TITLE: The evaluation of antibacterial and antifungal activities of dihydrotectochrysin and the volatile oil isolated from Kaempferia pandurata Roxb rhizomes using agar diffusion and cross streak methods

AUTHOR(S): Widiyanto, Mathilda; Sukandar, Elin Yulinah

CORPORATE SOURCE: Dep. Pharm., Bandung Inst. Technol., Bandung, Indonesia

SOURCE: Asahi Garasu Zaidan Josei Kenkyu Seika Hokoku (1993) 275-80

CODEN: AGSHEN; ISSN: 0919-9179

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

ED Entered STN: 28 May 1994

AB A review with 8 refs. Dihydrotectochrysin exhibited slight antimicrobial activity, whereas the volatile oil of K. pandurata showed a broad spectrum of activity against both bacteria and fungi. The volatile oil exhibits a MIC of 0.8% (1:131 dilution) against Bacillus subtilis and Pseudomonas pyogenes, and the activity of 10 µL of volatile oil was equivalent to 139.7 µg of chloramphenicol against B. subtilis and 783.97 µg of nystatin against Candida albicans.

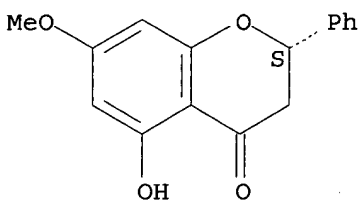
IT 480-37-5, Dihydrotectochrysin

RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); BIOL (Biological study)  
(from Kaempferia pandurata, antimicrobial activity of)

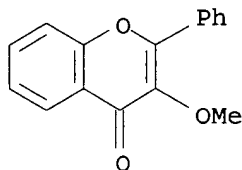
RN 480-37-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-7-methoxy-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

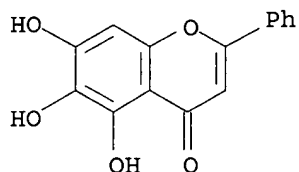
Absolute stereochemistry. Rotation (-).



L34 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1994:94486 CAPLUS  
DOCUMENT NUMBER: 120:94486  
TITLE: Antiviral agents from higher plants and example of  
structure-activity relationship of 3-methoxyflavones  
AUTHOR(S): Vanden Berghe, Dirk A. R.; Haemers, Achiel; Vlietinck,  
Arnold J.  
CORPORATE SOURCE: Dep. Med., Univ. Antwerp, Antwerp, Belg.  
SOURCE: Bioact. Nat. Prod. (1993), 405-40. Editor(s):  
Colegate, Steven M.; Molyneux, Russell J. CRC: Boca  
Raton, Fla.  
CODEN: 59QSAO  
DOCUMENT TYPE: Conference; **General Review**  
LANGUAGE: English  
ED Entered STN: 05 Mar 1994  
AB A review with 136 refs., with particular emphasis on 3-methoxyflavones.  
IT **7245-02-5D**, 3-Methoxyflavone, derivs.  
RL: **BAC (Biological activity or effector, except adverse)**; BSU  
(Biological study, unclassified); BIOL (Biological study)  
(virucides, from higher plants, structure-activity relations of)  
RN 7245-02-5 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3-methoxy-2-phenyl- (9CI) (CA INDEX NAME)



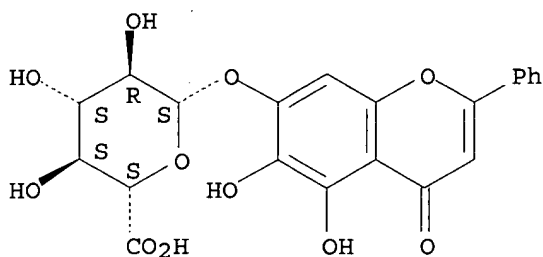
L34 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1975:80163 CAPLUS  
DOCUMENT NUMBER: 82:80163  
TITLE: Pharmacological actions of baicalin and baicalein from  
Scutellariae radix  
AUTHOR(S): Koda, Akihide  
CORPORATE SOURCE: Gifu Coll. Pharm., Gifu, Japan  
SOURCE: Taisha (1973), 10(5), 730-9  
CODEN: TSHAAW; ISSN: 0372-1566  
DOCUMENT TYPE: Journal; **General Review**  
LANGUAGE: Japanese  
ED Entered STN: 12 May 1984  
AB A review with 36 refs., showing that baicalin [21967-41-9] and  
baicalein [491-67-8], constituents of Scutellariae radix and  
analogous in structure to disodium cromoglycate, inhibit allergic  
reactions by preventing mediator release from mast cell, the compds. do  
not influence antibody formation, antigen-antibody interaction, or the  
complement system. The mechanism of prevention might be an inhibition of  
SH enzymes.  
IT **491-67-8 21967-41-9**  
RL: **BAC (Biological activity or effector, except adverse)**; BSU  
(Biological study, unclassified); **THU (Therapeutic use)**; BIOL  
(Biological study); USES (Uses)  
(pharmacol. of)  
RN 491-67-8 CAPLUS  
CN 4H-1-Benzopyran-4-one, 5,6,7-trihydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 21967-41-9 CAPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1968:77167 CAPLUS

DOCUMENT NUMBER: 68:77167

TITLE: Insecticidal activity of pyrones

AUTHOR(S): Anjaneyulu, A. S. R.; Row, L. Ramachandra

CORPORATE SOURCE: Andhra Univ., Waltair, India

SOURCE: Symp. Syn. Heterocycl. Compounds Physiol. Interest, Hyderabad, India, 1964 (1966), Meeting Date 1964, 47-57

CODEN: 16VOA6

DOCUMENT TYPE: Conference

LANGUAGE: English

ED Entered STN: 12 May 1984

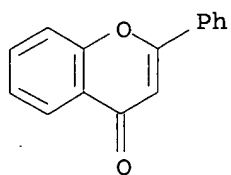
AB A review with 34 references. The toxicity of plant derived insecticides, such as rotenoids, coumarins, flavones, isoflavones, and pyrones, is tested against the freshwater fish, *Haplochilus panchax*. Flavones and isoflavones are inherently toxic to fish; a methyl or allyl ether group at C-7 and a veratroyl group in the side phenyl enhance their toxicity. The toxicity of rotenone is apparently attributable to its  $\gamma$ -pyranone structure and its steric configuration.

IT 525-82-6D, Flavone, derivs. 574-12-9D, Isoflavone, derivs.

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(insecticidal activity of, structure in relation to)

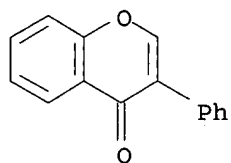
RN 525-82-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-phenyl- (9CI) (CA INDEX NAME)



RN 574-12-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-phenyl- (9CI) (CA INDEX NAME)

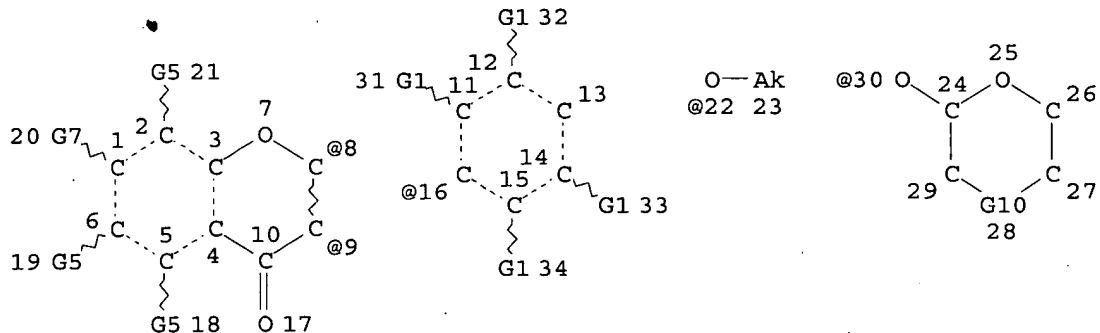


FILE 'HOME' ENTERED AT 15:47:47 ON 14 JUL 2005

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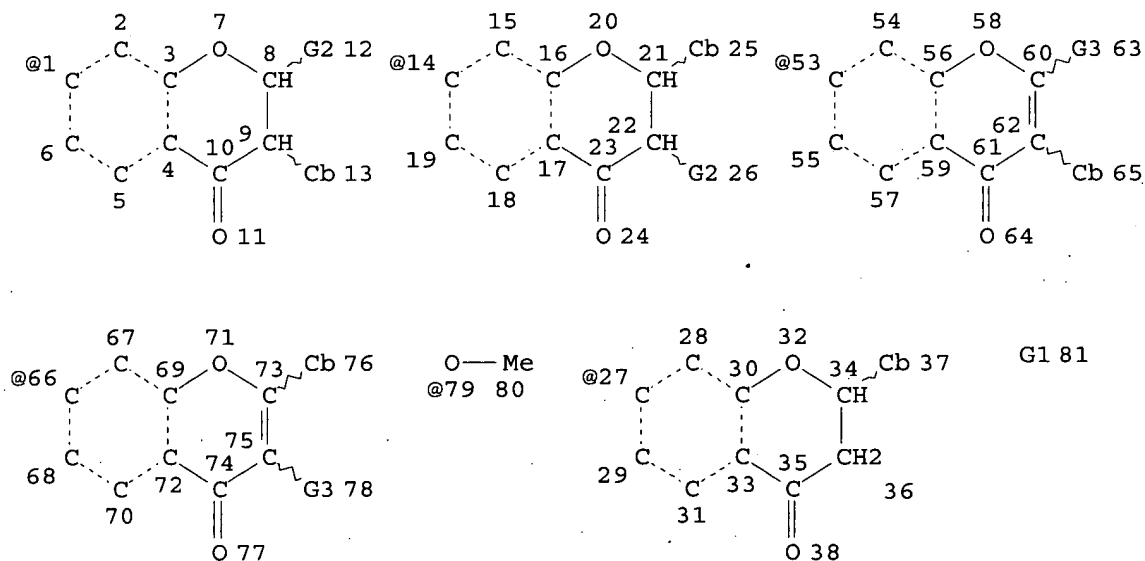
=> d stat que l22; d his full  
L8 STR



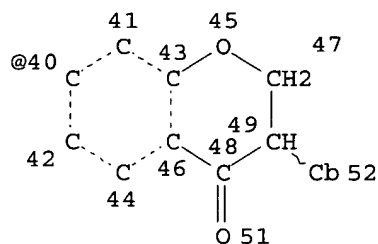
VAR G1=H/OH/22  
VAR G5=H/OH/22  
VAR G7=H/OH/22/30  
REP G10=(0-1) C  
VPA 16-8/9 U  
NODE ATTRIBUTES:  
CONNECT IS E1 RC AT 23  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE  
L10 15296 SEA FILE=REGISTRY SSS FUL L8  
L17 STR



Page 1-A



Page 2-A

VAR G1=1/14/53/66/27/40

VAR G2=OH/79

VAR G3=H/OH/79

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

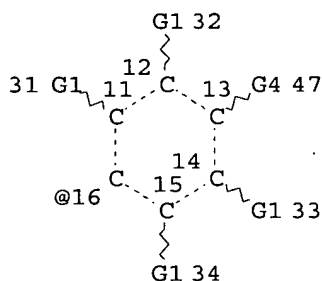
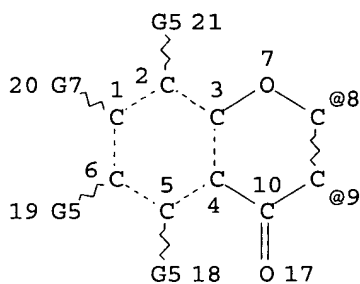
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

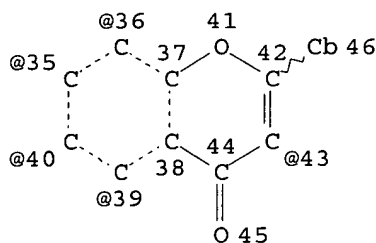
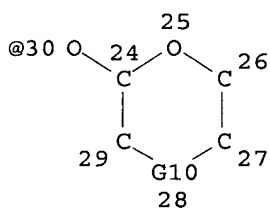
NUMBER OF NODES IS 79

STEREO ATTRIBUTES: NONE

L20 STR



O—Me  
@22 23



VAR G1=H/OH/22

VAR G4=H/35/36/40/39/43

VAR G5=H/OH/22

VAR G7=H/OH/22/30

REP G10=(0-1) C

VPA 16-8/9 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY LOC UNS AT 46

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 47

STEREO ATTRIBUTES: NONE

L22 1370 SEA FILE=REGISTRY SUB=L10 SSS FUL (L17 AND L20)

100.0% PROCESSED 15296 ITERATIONS

1370 ANSWERS

SEARCH TIME: 00.00.01

(FILE 'HOME' ENTERED AT 14:42:21 ON 14 JUL 2005)

FILE 'REGISTRY' ENTERED AT 14:42:25 ON 14 JUL 2005

L1 STR  
L2 50 SEA SSS SAM L1

FILE 'STNGUIDE' ENTERED AT 14:44:15 ON 14 JUL 2005

FILE 'REGISTRY' ENTERED AT 14:45:08 ON 14 JUL 2005

L3 15416 SEA SSS FUL L1  
SAVE TEMP L3 KHA306FULL/A

FILE 'CAPLUS' ENTERED AT 14:52:35 ON 14 JUL 2005

L4 SET LINE 250  
SET DETAIL OFF  
E US2001-782306/AP, PRN 25  
SET NOTICE 1000 SEARCH  
1 SEA ABB=ON US2001-782306/AP  
SET NOTICE LOGIN SEARCH  
SET LINE LOGIN  
SET DETAIL LOGIN  
D SCAN  
SEL RN

FILE 'REGISTRY' ENTERED AT 14:53:23 ON 14 JUL 2005

L5 17 SEA ABB=ON (14259-47-3/BI OR 329900-75-6/BI OR 481-53-8/BI OR  
486-66-8/BI OR 487-26-3/BI OR 491-54-3/BI OR 491-67-8/BI OR  
491-70-3/BI OR 491-80-5/BI OR 520-26-3/BI OR 520-27-4/BI OR  
520-33-2/BI OR 525-82-6/BI OR 528-48-3/BI OR 529-44-2/BI OR  
529-59-9/BI OR 577-85-5/BI)  
D SCAN

L6 STR L1  
L7 50 SEA SSS SAM L6  
L8 STR L6  
L9 50 SEA SSS SAM L8  
L10 15296 SEA SSS FUL L8  
SAVE TEMP L10 KHA306FULL/A  
L11 STR  
L12 50 SEA SUB=L10 SSS SAM L11  
E FLAVONE/CN

FILE 'LREGISTRY' ENTERED AT 15:15:35 ON 14 JUL 2005

L13 E FLAVONE/CN  
1 SEA ABB=ON FLAVONE/CN

D SCAN  
E 5-HYDROXY-FLAVONE/CN  
E FLAVONE, 5-HYDROXY/CN  
L14 1 SEA ABB=ON "FLAVONE, 5-HYDROXY-3',4',6,7-TETRAMETHOXY-"/CN  
D SCAN

FILE 'REGISTRY' ENTERED AT 15:18:35 ON 14 JUL 2005

D SCAN L5  
L15 STR L8  
L16 50 SEA SUB=L10 SSS SAM (L11 AND L15)  
L17 STR L11  
L18 STR L15  
D QUE L17  
D QUE L10  
L19 STR L8  
D QUE L18  
L20 STR L19  
D QUE L18  
D QUE L17  
D QUE L20  
L21 50 SEA SUB=L10 SSS SAM (L17 AND L20)  
L22 1370 SEA SUB=L10 SSS FUL (L17 AND L20)  
SAVE TEMP L22 KHA306SUB/A

FILE 'CAPLUS' ENTERED AT 15:36:09 ON 14 JUL 2005

L23 8031 SEA ABB=ON L22  
D SCAN L4  
L24 19296 SEA ABB=ON (NF/OBI OR NUCLEAR FACTOR/OBI) (W)K/OBI (W)B/OB  
I

FILE 'REGISTRY' ENTERED AT 15:38:16 ON 14 JUL 2005

E CYCLOOXYGENASE-2/CN  
L25 1 SEA ABB=ON 329900-75-6  
D SCAN

FILE 'REGISTRY' ENTERED AT 15:39:15 ON 14 JUL 2005

D IDE  
E NFKB/CN

FILE 'CAPLUS' ENTERED AT 15:40:21 ON 14 JUL 2005

L26 1643 SEA ABB=ON L22 (L) (THU OR PAC OR PKT OR DMA OR BAC)/RL  
L27 9735 SEA ABB=ON L25 OR (CYCLOOXYGENASE/OBI OR CYCLO OXYGENASE/OBI  
OR COX/OBI) (W)2/OBI OR COX2/OBI  
L28 61 SEA ABB=ON (L24 OR L27) AND L22  
L29 41 SEA ABB=ON (L24 OR L27) (L) (INHIB?/OBI OR BLOCK?/OBI OR  
ANTAG?/OBI) AND L22  
L30 36 SEA ABB=ON L29 AND L26  
L31 5 SEA ABB=ON L29 NOT L30  
D SCAN  
E GEN/DT  
E REVIEW/DT  
L32 103 SEA ABB=ON L22 AND REVIEW/DT  
L33 31 SEA ABB=ON L26 AND L32

FILE 'REGISTRY' ENTERED AT 15:45:48 ON 14 JUL 2005

D STAT QUE L22

FILE 'CAPLUS' ENTERED AT 15:45:48 ON 14 JUL 2005

D QUE NOS L30  
D IBIB ED ABS HITSTR L30 1-36

L34 D QUE NOS L33  
31 SEA ABB=ON L33 NOT L30  
D IBIB ED ABS HITSTR L34 1-31

FILE 'HOME' ENTERED AT 15:47:47 ON 14 JUL 2005  
D SAVED  
D STAT QUE L22

FILE HOME

FILE REGISTRY

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\*  
\*\*\*\*\*

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FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jul 8, 2005 (20050708/UP).

FILE CAPLUS

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